

THE 2006-2007 MISSOURI MUNICIPAL SOLID WASTE COMPOSITION STUDY

October, 2007

Conducted by:
Midwest Assistance Program, Inc.
The Midwestern Rural Community Assistance Partner



Funded by:
**THE MISSOURI DEPARTMENT OF
NATURAL RESOURCES
SOLID WASTE MANAGEMENT PROGRAM**



Acknowledgments

The Midwest Assistance Program, Inc. would like to thank the following contributors to the 2006-2007 Missouri Municipal Solid Waste Composition Study:

- The Missouri Department of Natural Resources Solid Waste Management Program for technical assistance and funding
- Contracted sorters Keith and Janice Powell for providing consistent, conscientious services during all types of weather and conditions to get the information for this study
- Participating Landfill and Transfer Station managers and personnel for providing sort locations, information, and assistance during the sorts
- Tim Warren, Rechargeable Battery Recycling Corporation, for analyzing and reporting the battery information
- Solid Waste Management District Planners for their information and assistance



Table of Contents

Executive Summary	1
Overview	1
Methodology	3
Results	5
Chart 1 - 2006-2007 WCS Composition by Weight	
Chart 2 - 2006-2007 WCS Composition by Volume	
Table 1 - 2006-2007 Waste Composition Study Results	
Chart 3 - 2006-2007 WCS Results applied to MSW Disposed in Missouri Landfills	
Table 2 - 2006-2007 WCS Summary of Weights and Volumes Sampled by Location	
Table 3 - 2006-2007 Waste Composition and Comparison Results in Respective Solid Waste Management Districts	
Table 4 - Lowest and Highest Results by Category and Subcategory	
Chart 4 - 2006-2007 Seasonal Comparison by Material as % of Weight	
Chart 5 - 2006-2007 Seasonal Comparison by Material as % of Volume	
Table 5 - 2006-2007 Waste Composition and Comparison by Season	
Chart 6 - 2006-2007 vs. 1996-1997 by Material as % of Weight	
Chart 7 - 2006-2007 vs. 1996-1997 by Material as % of Volume	
Table 6 - Waste Composition and Comparison 2006-2007 to 1996-1997 Results	
Chart 8 - Waste Composition by Population Groups	
Table 7 - Waste Composition and Comparison by Population Density	
Conclusions	19
Table 8 - Estimated Value of Recyclables in Missouri's 2006 MSW Waste Stream	
 Appendix 1 - Columbia Sanitary Landfill	 23
Table 1.1 - Sample Summary - Columbia Sanitary Landfill	
Table 1.2 - City of Columbia Landfill Fall 2006 Sort Results	
Table 1.3 - City of Columbia Landfill Spring 2007 Sort Results	
Chart 1.1 - Columbia Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 1.2 - Columbia Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 1.4 - Waste Composition Summary and Comparison Columbia Landfill 1996-1997 to 2006-2007	
Table 1.5 - Waste Composition Summary and Comparison Columbia Landfill Site to 2006-2007 Average	
Chart 1.3 - Columbia Results 2006-2007 vs. 1996-1997	
Chart 1.4 - Columbia Results 2006-2007 vs. 2006-2007 Sort Average	
Table 1.6 - Special Waste Sorted at Columbia Sanitary Landfill	
 Appendix 2 - Courtney Ridge Landfill	 33
Table 2.1 - Sample Summary - Courtney Ridge Landfill	
Table 2.2 - Courtney Ridge Fall 2006 Sort Results	
Table 2.3 - Courtney Ridge Landfill Spring 2007 Sort Results	
Chart 2.1 - Courtney Ridge Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 2.2 - Courtney Ridge Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 2.4 - Waste Composition Summary & Comparison Courtney Ridge Landfill 1996-1997 to 2006-2007	
Table 2.5 - Waste Composition Summary and Comparison Courtney Ridge Site to 2006-2007 Average	
Chart 2.3 - Courtney Ridge Results 2006-2007 vs. 1996-1997	
Chart 2.4 - Courtney Ridge Results 2006-2007 vs. 2006-2007 Sort Average	
Table 2.6 - Special Waste Sorted at Courtney Ridge Landfill	
 Appendix 3 - Lee's Summit Landfill	 42
Table 3.1 - Sample Summary - Lee's Summit Landfill	
Table 3.2 - City of Lee's Summit Fall 2006 Sort Results	

Table 3.3 – City of Lee’s Summit Landfill Spring 2007 Sort Results	
Chart 3.1 – Lee’s Summit Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 3.2 – Lee’s Summit Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 3.4 – Waste Composition Summary & Comparison Lee’s Summit Landfill 1996-1997 to 2006-2007	
Table 3.5 – Waste Composition Summary and Comparison Lee’s Summit Site to 2006-2007 Average	
Chart 3.3 – Lee’s Summit Results 2006-2007 vs. 1996-1997	
Chart 3.4 – Lee’s Summit Results 2006-2007 vs. 2006-2007 Sort Average	
Table 3.6 – Special Waste Sorted at Lee’s Summit Landfill	

Appendix 4 – Maple Hill (Macon) Landfill ----- 51

Table 4.1 – Sample Summary – Maple Hill (Macon) Landfill	
Table 4.2 – Maple Hill (Macon) Fall 2006 Sort Results	
Table 4.3 – Maple Hill (Macon) Landfill Spring 2007 Sort Results	
Chart 4.1 – Maple Hill (Macon) Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 4.2 – Maple Hill (Macon) Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 4.4 – Waste Composition Summary & Comparison Maple Hill (Macon) Landfill 1996-1997 to 2006-2007	
Table 4.5 – Waste Composition Summary and Comparison Maple Hill (Macon) Site to 2006-2007 Average	
Chart 4.3 – Maple Hill (Macon) Results 2006-2007 vs. 1996-1997	
Chart 4.4 – Maple Hill (Macon) Results 2006-2007 vs. 2006-2007 Sort Average	
Table 4.6 – Special Waste Sorted at Maple Hill (Macon) Landfill	

Appendix 5 – Maryville Transfer Station ----- 60

Table 5.1 – Sample Summary – Maryville Transfer Station	
Table 5.2 – City of Maryville Transfer Station Fall 2006 Sort Results	
Table 5.3 – City of Maryville Transfer Station Spring 2007 Sort Results	
Chart 5.1 – Maryville Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 5.2 – Maryville Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 5.4 – Waste Composition Summary & Comparison Maryville Transfer Station 1996-1997 to 2006-2007	
Table 5.5 – Waste Composition Summary and Comparison Maryville Site to 2006-2007 Average	
Chart 5.3 – Maryville Results 2006-2007 vs. 1996-1997	
Chart 5.4 – Maryville Results 2006-2007 vs. 2006-2007 Sort Average	
Table 5.6 – Special Waste Sorted at Maryville Transfer Station	

Appendix 6 – O’Fallon Transfer Station ----- 69

Table 6.1 – Sample Summary – O’Fallon Transfer Station	
Table 6.2 – City of O’Fallon Transfer Station Fall 2006 Sort Results	
Table 6.3 – City of O’Fallon Transfer Station Spring 2007 Sort Results	
Chart 6.1 – O’Fallon Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 6.2 – O’Fallon Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 6.4 – Waste Composition Summary & Comparison O’Fallon Transfer Station 1996-1997 to 2006-2007	
Table 6.5 – Waste Composition Summary and Comparison O’Fallon Site to 2006-2007 Average	
Chart 6.3 – O’Fallon Results 2006-2007 vs. 1996-1997	
Chart 6.4 – O’Fallon Results 2006-2007 vs. 2006-2007 Sort Average	
Table 6.6 – Special Waste Sorted at O’Fallon Transfer Station	

Appendix 7 – Osage Beach Transfer Station ----- 78

Table 7.1 – Sample Summary – Osage Beach Transfer Station	
Table 7.2 – Osage Beach Transfer Station Fall 2006 Sort Results	
Table 7.3 – Osage Beach Transfer Station Spring 2007 Sort Results	
Chart 7.1 – Osage Beach Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight	
Chart 7.2 – Osage Beach Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume	
Table 7.4 – Waste Composition Summary & Comparison Osage Beach Transfer Station 1996-1997 to 2006-2007	
Table 7.5 – Waste Composition Summary and Comparison Osage Beach Site to 2006-2007 Average	
Chart 7.3 – Osage Beach Results 2006-2007 vs. 1996-1997	

Chart 7.4 – Osage Beach Results 2006-2007 vs. 2006-2007 Sort Average

Table 7.6 – Special Waste Sorted at Osage Beach Transfer Station

Appendix 8 – Pemiscot County Transfer Station----- 87

Table 8.1 – Sample Summary – Pemiscot County Transfer Station

Table 8.2 – Pemiscot County Transfer Station Fall 2006 Sort Results

Table 8.3 – Pemiscot County Transfer Station Spring 2007 Sort Results

Chart 8.1 – Pemiscot County Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight

Chart 8.2 – Pemiscot County Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume

Table 8.4 – Waste Composition Summary & Comparison Pemiscot County Transfer Station 1996-1997 to 2006-2007

Table 8.5 – Waste Composition Summary and Comparison Pemiscot County Site to 2006-2007 Average

Chart 8.3 – Pemiscot County Results 2006-2007 vs. 1996-1997

Chart 8.4 – Pemiscot County Results 2006-2007 vs. 2006-2007 Sort Average

Table 8.6 – Special Waste Sorted at Pemiscot County Transfer Station

Appendix 9 – Phelps County Transfer Station----- 96

Table 9.1 – Sample Summary – Phelps County Transfer Station

Table 9.2 – Phelps County Transfer Station Fall 2006 Sort Results

Table 9.3 – Phelps County Transfer Station Spring 2007 Sort Results

Chart 9.1 – Phelps County Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight

Chart 9.2 – Phelps County Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume

Table 9.4 – Waste Composition Summary & Comparison Phelps County Transfer Station 1996-1997 to 2006-2007

Table 9.5 – Waste Composition Summary and Comparison Phelps County Site to 2006-2007 Average

Chart 9.3 – Phelps County Results 2006-2007 vs. 1996-1997

Chart 9.4 – Phelps County Results 2006-2007 vs. 2006-2007 Sort Average

Table 9.6 – Special Waste Sorted at Phelps County Transfer Station

Appendix 10 – Reeds Spring Transfer Station----- 105

Table 10.1 – Sample Summary – Reeds Spring Transfer Station

Table 10.2 – Reeds Spring Transfer Station Fall 2006 Sort Results

Table 10.3 – Reeds Spring Transfer Station Spring 2007 Sort Results

Chart 10.1 – Reeds Spring Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight

Chart 10.2 – Reeds Spring Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume

Table 10.4 – Waste Composition Summary & Comparison Reeds Spring Transfer Station 1996-1997 to 2006-2007

Table 10.5 – Waste Composition Summary and Comparison Reeds Spring Site to 2006-2007 Average

Chart 10.3 – Reeds Spring Results 2006-2007 vs. 1996-1997

Chart 10.4 – Reeds Spring Results 2006-2007 vs. 2006-2007 Sort Average

Table 10.6 – Special Waste Sorted at Reeds Spring Transfer Station

Appendix 11 – St. Francois County Transfer Station----- 114

Table 11.1 – Sample Summary – St. Francois County Transfer Station

Table 11.2 – St. Francois County Transfer Station Fall 2006 Sort Results

Table 11.3 – St. Francois County Transfer Station Spring 2007 Sort Results

Chart 11.1 – St. Francois County Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight

Chart 11.2 – St. Francois County Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume

Table 11.4 – Waste Composition Summary & Comparison St. Francois County Transfer Station 1996-1997 to 2006-2007

Table 11.5 – Waste Composition Summary and Comparison St. Francois County Site to 2006-2007 Average

Chart 11.3 – St. Francois County Results 2006-2007 vs. 1996-1997

Chart 11.4 – St. Francois County Results 2006-2007 vs. 2006-2007 Sort Average

Table 11.6 – Special Waste Sorted at St. Francois County Transfer Station

Appendix 12 – St. Joseph Landfill----- 123

- Table 12.1 – Sample Summary – St. Joseph Landfill
- Table 12.2 – City of St. Joseph Fall 2006 Sort Results
- Table 12.3 – City of St. Joseph Landfill Spring 2007 Sort Results
- Chart 12.1 – St. Joseph Results Fall 2006 vs. Spring 2007 Percentage by Weight
- Chart 12.2 – St. Joseph Results Fall 2006 vs. Spring 2007 Percentage by Volume
- Table 12.4 – Waste Composition Summary & Comparison St. Joseph Landfill 1996-1997 to 2006-2007
- Table 12.5 – Waste Composition Summary and Comparison St. Joseph Site to 2006-2007 Average
- Chart 12.3 – St. Joseph Results 2006-2007 vs. 1996-1997
- Chart 12.4 – St. Joseph Results 2006-2007 vs. 2006-2007 Sort Average
- Table 12.6 – Special Waste Sorted at St. Joseph Landfill

Appendix 13 – St. Louis (South) Transfer Station----- 132

- Table 13.1 – Sample Summary – St. Louis (South) Transfer Station
- Table 13.2 – City of St. Louis (South) Transfer Station Fall 2006 Sort Results
- Table 13.3 – City of St. Louis (South) Transfer Station Spring 2007 Sort Results
- Chart 13.1 – St. Louis (South) Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight
- Chart 13.2 – St. Louis (South) Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume
- Table 13.4 – Waste Composition Summary & Comparison St. Louis (South) Transfer Station 1996-1997 to 2006-2007
- Table 13.5 – Waste Composition Summary and Comparison St. Louis (South) Site to 2006-2007 Average
- Chart 13.3 – St. Louis (South) Results 2006-2007 vs. 1996-1997
- Chart 13.4 – St. Louis (South) Results 2006-2007 vs. 2006-2007 Sort Average
- Table 13.6 – Special Waste Sorted at St. Louis (South) Transfer Station

Appendix 14 – Springfield Landfill----- 141

- Table 14.1 – Sample Summary – Springfield Landfill
- Table 14.2 – City of Springfield Fall 2006 Sort Results
- Table 14.3 – City of Springfield Landfill Spring 2007 Sort Results
- Chart 14.1 – Springfield Results Fall 2006 vs. Spring 2007 Percentage by Weight
- Chart 14.2 – Springfield Results Fall 2006 vs. Spring 2007 Percentage by Volume
- Table 14.4 – Waste Composition Summary & Comparison Springfield Landfill 1996-1997 to 2006-2007
- Table 14.5 – Waste Composition Summary and Comparison Springfield Site to 2006-2007 Average
- Chart 14.3 – Springfield Results 2006-2007 vs. 1996-1997
- Chart 14.4 – Springfield Results 2006-2007 vs. 2006-2007 Sort Average
- Table 14.6 – Special Waste Sorted at Springfield Landfill

Appendix 15 – West Plains Transfer Station----- 150

- Table 15.1 – Sample Summary – West Plains Transfer Station
- Table 15.2 – City of West Plains Transfer Station Fall 2006 Sort Results
- Table 15.3 – City of West Plains Transfer Station Spring 2007 Sort Results
- Chart 15.1 – West Plains Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Weight
- Chart 15.2 – West Plains Transfer Station Results Fall 2006 vs. Spring 2007 Percentage by Volume
- Table 15.4 – Waste Composition Summary & Comparison West Plains Transfer Station 1996-1997 to 2006-2007
- Table 15.5 – Waste Composition Summary and Comparison West Plains Site to 2006-2007 Average
- Chart 15.3 – West Plains Results 2006-2007 vs. 1996-1997
- Chart 15.4 – West Plains Results 2006-2007 vs. 2006-2007 Sort Average
- Table 15.6 – Special Waste Sorted at West Plains Transfer Station

References

EXECUTIVE SUMMARY

Overview

In 1996-1997, the Missouri Department of Natural Resources Solid Waste Management Program funded a Waste Composition Study to characterize and analyze samples of the municipal solid waste stream at Missouri landfills and transfer stations. The 2006-2007 Missouri Waste Composition Study (WCS) has been funded by the Department to sample and assess the characterization a decade later. Analysis of the 2006-2007 sort data by location and/or region as well as comparisons to the 1996-1997 results are included in this report.

Municipal solid waste (MSW) was the targeted waste stream. MSW represents the residential and light commercial loads which are the typical focus of recycling and waste reduction programs. In 1996 and 1997, MDNR reported waste reduction rates of 33 and 30 percent, respectively. Since 2001, the department has reported Missouri continues to meet the 40 percent waste diversion goal established by Senate Bill 530, which was signed into law in 1990. The estimated diversion rate for 2006 was 44% (MDNR SWMP).

The 2006-2007 study was conducted and summarized by the Midwest Assistance Program(MAP). MAP is a non-profit organization which provides environmental technical assistance throughout the Midwest.

Of the fifteen locations sampled for the 2006-2007 WCS, fourteen were locations considered in the 1996-1997 study. Results from both periods of time have been compared with significant changes noted as well as a general discussion of significant changes to area services over the decade. The fifteenth location, Courtney Ridge, is compared to the nearest location sampled in the 1996-1997 study, Lee's Summit.

The waste samples were sorted into categories during the 2006-2007 WCS including the twenty-six categories in the 1996-1997 study, plus two additional categories for electronic waste and household hazardous waste items.

The purpose of the study was to identify components and percentages of waste in the municipal solid waste stream entering Missouri landfills. This provides knowledge for designing and implementing programs to reduce, reuse, and/or recycle targeted materials within the waste stream. Comparing the 2006-2007 study to previous studies assists in evaluation of such programs implemented during the intervening time. Waste generation rates and recycling program development for Missouri are discussed herein, as are the changes observed in Missouri's MSW.

The 2006-2007 Municipal Solid Waste Composition Study found among other things that:

- There is a lower percentage of Paper in the Missouri MSW waste stream than during the 1996-1997 WCS
- There is a higher percentage of Plastic in Missouri's MSW waste stream than during the 1996-1997 study, and
- A large portion of the Missouri MSW waste stream has value and should be targeted for diversion.

2006-2007 Missouri Municipal Solid Waste Composition Sites Sampled by County and Solid Waste Management Regions



(LF=Landfill TS=Transfer Station)

- | | | |
|--------------------------|-----------------------|----------------------------|
| 1. Columbia LF | 6. O'Fallon TS | 11. St. Francois County TS |
| 2. Courtney Ridge LF | 7. Osage Beach TS | 12. St. Joseph LF |
| 3. Lee's Summit LF | 8. Pemiscot County TS | 13. St. Louis (south) TS |
| 4. Maple Hill (Macon) LF | 9. Phelps County TS | 14. Springfield LF |
| 5. Maryville TS | 10. Reeds Spring TS | 15. West Plains TS |

Methodology

MAP advertised, interviewed, and contracted with Keith and Janice Powell of Rolla to conduct the thirty sorts. This provided a reliable labor force and a consistent approach. MAP staff Dennis Siders and Cynthia Mitchell provided waste sort training and supervision throughout the project.

Two sorts were conducted at each of fifteen locations, one in the fall of 2006 and one in the spring of 2007. The sorting dates were as follows:

<u>Location</u>	<u>Fall 2006 Sorting Dates</u>	<u>Spring 2007 Sorting Dates</u>
Columbia	10/8-10/9/06	6/14-6/15/07
Courtney Ridge	10/24-10/25/06	6/7-6/8/07
Lee's Summit	10/23-10/24/06	6/5-6/6/07
Macon	10/11-10/12/06	6/12-6/13/07
Maryville	10/27-10/28/06	5/31-6/1/07
O'Fallon	10/5-10/6/06	5/21-5/22/07
Osage Beach	11/8-11/9/06	4/23-4/24/07
Pemiscot County	10/18-10/19/06	4/12-4/13/07
Phelps County	10/31-11/1/06	4/5-4/6/07
Reeds Spring	11/6-11/7/06	4/9-4/10/07
Springfield	11/2-11/3/06	4/18-4/19/07
St. Francois County	9/28-9/29/06	4/16-4/17/07
St. Joseph	10/25-10/26/06	5/29-5/30/07
St. Louis South	10/2-10/3/06	5/24-5/25/07
West Plains	10/16-10/17/06	4/3-4/4/07

Sorting locations on site were determined with local management and the sorting table, bins, and tools were set up accordingly. A tent was utilized at some locations. On-site buildings were used wherever available. Twenty-gallon labeled plastic containers were set up around the perimeter of the sorting table to receive sorted materials. A top-loaded scale was set up and tared to compensate for the empty bin weight.

Municipal solid waste (MSW) was the targeted sample material. Therefore, only loads with residential waste from single or multi-family dwellings and light commercial waste were



selected. Incoming municipal solid waste loads, primarily large packer trucks, were identified and selected at random and the driver was interviewed to determine the area the waste was hauled from as well as the estimated percentage of residential and commercial materials. Eight loads were sampled from each site in the fall and again in the spring, with the exception of the fall sort at the St. Francois County Transfer Station. Only six representative MSW loads arrived at the St. Francois County Transfer Station during the two-day fall sort.



Once the load was determined appropriate for sampling, 25 bags were selected at random from the load. Bags were opened and materials sorted into bins representing 28 categories. The descriptions for the categories utilized are as follows:

PAPER

Cardboard and Kraft Paper – corrugated cardboard, chipboard/boxboard, kraft paper

Newsprint–newspapers and ground wood paper stock

Magazines–periodicals and bound printed material from glossy and plain paper stocks

High Grade Paper–marketable quality office paper, plain stock junk mail, envelopes

Mixed Paper–all other paper materials that do not fit into above category, such as paper towels, tissues/bathroom waste, fast food wrappers

GLASS

Clear Glass Containers – clear glass which originally contained food or beverage

Brown Glass Containers – brown glass which originally contained food or beverages

Green or Blue Glass Containers – green or blue cast glass which originally contained food or beverage

Other Glass – Glass that was not originally a food or beverage container, such as pottery, light bulbs, window panes, etc.

METALS

Aluminum Cans – aluminum beverage containers

Other Aluminum – aluminum other than beverage containers, such as foil, foil pans, etc.

Ferrous Food Cans – Steel food containers, including pet food cans and aerosol cans

Other Ferrous – Ferrous and alloyed ferrous scrap to which a magnet attracts

Other Non-Ferrous – all nonmagnetic metals that are not recognizable as aluminum

Oil Filters – used and new automotive oil filters

PLASTICS

Pet (#1) – beverage bottles and other containers clearly identified as #1 plastic, composed of polyethylene terephthalate

HDPE(#2) – containers clearly marked as #2 plastic, composed of high density polyethylene

Plastic Film – all flexible plastic film regardless of resin content, such as plastic shopping bags, trash bags, and product wrapping

Other Plastic – PVC(#3), LDPE(#4), PP(#5), PS(#6), other plastics or mixed resins (#7), and unidentifiable plastics, such as toys, straws, miscellaneous household and personal products made of plastic but not identifiable as PET(#1) or HDPE(#2)

ORGANICS

Food Waste – putrescent material capable of being decomposed by microorganisms with sufficient rapidity to cause nuisances from odors and gases

Wood Waste – items composed of wood, such as furniture, tools, boards, plywood, frames, etc.

Textiles – woven fabric, natural or synthetic, either in bulk or made into usable items, such as clothing, shoes, handbags, etc.

Disposable Diapers – adult or infant disposable diapers, clean or soiled

Other Organics – items that do not fall into any other category which are composed of carbon-based material, such as human and animal feces, plant trimmings, etc.

INORGANICS

Fines – all matter not sorted into specific categories which are too small or mixed to be categorized

Other Inorganics – items which do not fall into any other category and are composed of inert materials, such as kitty litter

ELECTRONIC WASTE

Any item that has been operated electrically, or a component of the item, such as computers, monitors, keyboards, computer mouse, remote controls, small appliances, telephones/answering machines, electronic games or controllers

HOUSEHOLD HAZARDOUS WASTE

Items that are potentially hazardous to waste handlers or ecosystems, such as over-the-counter(OTC) and prescription(Rx) medications, beauty/hygiene products, beauty/hygiene aerosols, household cleaning products and aerosols, sharps/blades, syringes and needles, hardware and gardening/yard products, disposable razors, batteries, and other miscellaneous hazardous or toxic items

As each sample was sorted, bins of sorted material were weighed and recorded. The volume of material was estimated and recorded as 5, 10, 15, or 20 gallons of material. Following each location's sort, the data was input into the computer, volume converted from gallons to cubic yards, and all quantities were summarized. Batteries were retained for delivery and evaluation by the Rechargeable Battery Recycling Corporation.

Results

Disposal Rates of Municipal Solid Waste

The Missouri Department of Natural Resources receives data on the tonnage disposed in Missouri landfills, but does not know the end destination of all waste received at transfer stations. Transfer stations deposit their materials into landfills in Missouri as well as surrounding states. Therefore, quantifying the overall waste stream is difficult. Automatically summing all waste from landfills and transfer stations would double count the tons from transfer stations that are disposed in Missouri landfills.

No data is reported to DNR regarding the composition of the tonnage disposed. Therefore components of the total waste stream must be estimated in order to obtain the quantity of MSW. This was accomplished during the 1996-1997 WCS. That determination is listed below as well as additional data considered in estimating the components of the Missouri waste stream and analysis contained in this report:

- Tons of waste disposed of in Missouri landfills during 2006 = 4,500,160 (MDNR)
- The 2006 Missouri population = 5,842,713 (MDNR estimate)
- Annual Per Capita Waste Generation = 2.14 tons
- Missouri MSW percentage of waste stream is 59.6% (1996-1997 WCS)

From this information, the quantity of MSW in the Missouri waste stream for disposal in 2006 was determined to be 2,682,095 tons. Per Capita MSW generation was 1.28 tons annually, or 7 pounds per day. Annual waste disposal in Missouri landfills per capita was 1,540 pounds in 2006.

Sort Findings

The 2006-2007 WCS sort results as a percent by weight and percent by volume of the major sort categories are exhibited in Chart 1 and Chart 2 and detailed in Table 1.

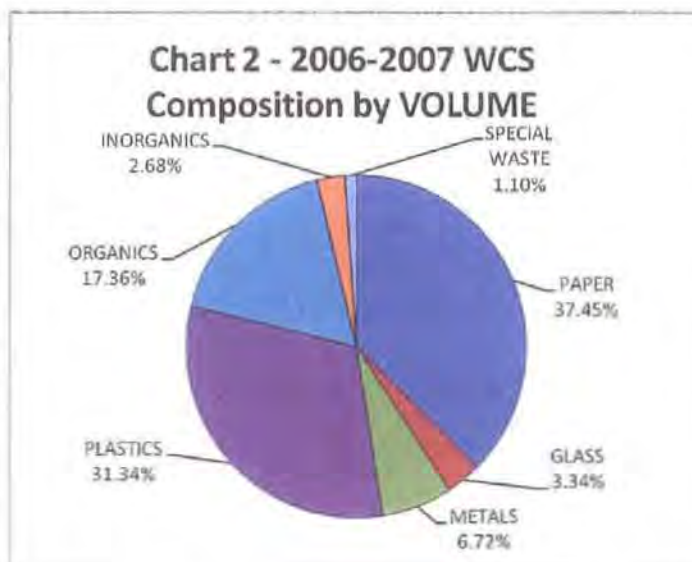
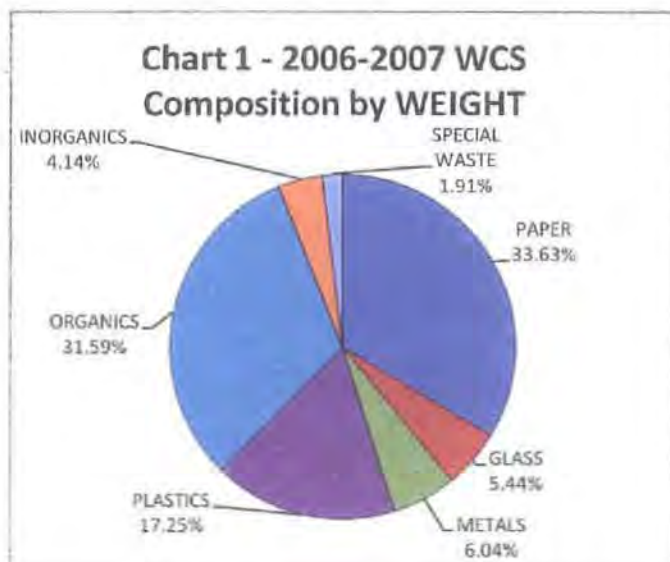
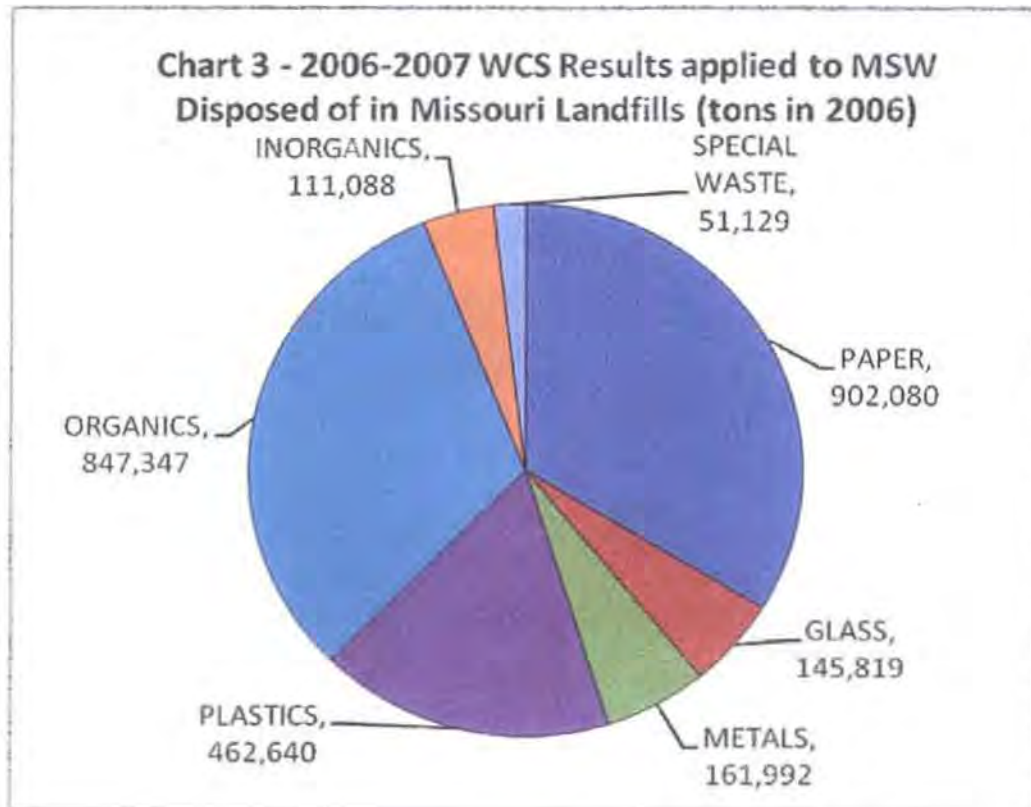


Table 1 – 2006-2007 Waste Composition Study Results

	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.
Cardboard	4,884	8.20%	68.778	13.59%
Newsprint	3,076	5.17%	17.635	3.48%
Magazines	2,181	3.66%	9.025	1.78%
High Grade Paper	3,809	6.40%	32.95	6.51%
Mixed Paper	6,075	10.20%	61.225	12.09%
TOTAL PAPER	20,025	33.63%	189.613	37.45%
Clear Glass	1,616	2.71%	6.55	1.29%
Brown Glass	1,054	1.77%	5.585	1.10%
Green Glass	374	0.63%	3.075	0.61%
Other Glass	193	0.32%	1.685	0.33%
TOTAL GLASS	3,237	5.44%	16.895	3.34%
Aluminum Cans	946	1.59%	13.075	2.58%
Other Aluminum	200	0.34%	2.875	0.57%
Non Ferrous	137	0.23%	1.425	0.28%
Food Cans	1,747	2.93%	12.425	2.45%
Ferrous	518	0.87%	3.71	0.73%
Oil filters	48	0.08%	0.526	0.10%
TOTAL METALS	3,596	6.04%	34.036	6.72%
PET #1	1,516	2.55%	23.45	4.63%
HDPE #2	1,129	1.90%	20.55	4.06%
Plastic Film	2,869	4.82%	51.8	10.23%
Other Plastic	4,756	7.99%	62.875	12.42%
TOTAL PLASTIC	10,270	17.25%	158.675	31.34%
Food Waste	10,254	17.22%	41.825	8.26%
Wood Waste	709	1.19%	3.425	0.68%
Textiles	2,817	4.73%	16.6	3.28%
Diapers	3,264	5.48%	15.3	3.02%
Other Organics	1,766	2.97%	10.725	2.12%
TOTAL ORGANICS	18,810	31.59%	87.875	17.36%
Fines	554	0.93%	4.45	0.88%
Other Inorganics	1,912	3.21%	9.125	1.80%
TOTAL INORGANICS	2,466	4.14%	13.575	2.68%
HHW	547	0.92%	3.05	0.60%
Electronic Waste	588	0.99%	2.525	0.50%
TOTAL SPECIAL WASTE	1,135	1.91%	5.575	1.10%
TOTAL COMPOSITION	59,539	100%	506.244	100%

Applying these findings to the estimated MSW waste stream disposed of in Missouri landfills in 2006, Chart 3 exhibits the estimated quantities of each category going into the landfills.



Summarized weights and volumes of the samples at each location are presented in Table 2. Overall, just less than 30 tons were sampled during 30 sorting events, an average of almost one ton per sorting event at each location in the fall and again in the spring. Just over 15,000 tons of wastes were accepted at the facilities during the time frame the samples were conducted. The Maryville Transfer Station receives the least amount on average at 50 tons per day while the Courtney Ridge Landfill averaged over 1000 tons per day in 2006. The sorted volume totaled just over 500 cubic yards, an average of approximately 16.5 c.y. per site per sampling event in the fall and spring. Table 3 provides the results by location identified in their respective solid waste management districts. The locations with the highest and lowest results as a percentage by weight and percentage by volume for each sort category and subcategory are displayed in Table 4.

Table 2 – 2006-2007 WCS Summary of Weights and Volumes Sampled by Location

	Fall Sort Wt.(lbs.)	Fall Sort Vol.(c.y.)	Spring Sort Wt.(lbs.)	Spring Sort Vol.(c.y.)	Total Wt.(lbs.)	Total Vol.(c.y.)
Columbia	1,737	15.6	2,288	18.0	4,025	33.6
Courtney Ridge	1,908	18.4	2,167	17.9	4,075	36.3
Lee's Summit	1,736	14.3	2,374	19.3	4,110	33.6
Macon	2,199	20.2	2,023	15.2	4,222	35.4
Maryville	1,914	17.8	2,136	17.3	4,050	35.1
O'Fallon	1,493	12.3	1,933	14.6	3,426	26.9
Osage Beach	1,894	16.6	2,106	18.3	4,000	34.9
Pemiscot County	2,164	19.4	2,161	20.8	4,325	40.2
Phelps County	1,855	15.3	2,281	18.2	4,136	33.5
Reeds Spring	2,073	18.3	2,186	19.4	4,259	37.7
Springfield	2,006	16.2	2,030	18.5	4,036	34.7
St. Francois County	1,402	11.3	2,449	20.9	3,851	32.1
St. Joseph	1,878	16.2	1,857	15.9	3,735	32.0
St. Louis	1,498	13.2	1,781	13.8	3,279	27.0
West Plains	2,087	16.7	1,923	16.6	4,010	33.3
TOTAL	27,844	241.6	31,695	264.6	59,539	506.2
Avg. per Site	1,856	16.1	2,113	17.6	3,969	33.7

**Table 3 - 2006-2007 Waste Composition and Comparison
Results in Respective Solid Waste Management Districts**

	Dist.A-Maryville		Dist.D-St. Joseph		Dist.E-Lee's Summit		Dist.E-Courtney Ridge		Dist.G-Macon		Dist.H-Columbia		Dist.K-Phelps Co.	
	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Cardboard	8.67%	14.47%	7.84%	13.90%	8.00%	13.48%	8.86%	14.59%	8.67%	12.70%	8.67%	15.34%	7.37%	12.47%
Newsprint	4.49%	2.92%	6.61%	4.14%	6.20%	4.10%	5.80%	3.17%	5.40%	3.25%	3.95%	2.78%	3.46%	2.91%
Magazines	2.77%	1.21%	3.91%	2.42%	4.23%	2.46%	3.07%	1.45%	3.15%	1.62%	2.96%	1.49%	3.87%	1.94%
High Grade Paper	6.59%	7.13%	5.41%	5.23%	5.96%	5.73%	8.00%	8.40%	5.95%	5.36%	4.75%	4.17%	9.21%	8.14%
Mixed Paper	8.84%	11.40%	11.36%	12.88%	9.29%	11.96%	8.84%	10.60%	10.35%	11.43%	11.06%	12.66%	9.84%	11.20%
TOTAL PAPER	31.16%	37.13%	35.16%	38.66%	33.70%	37.76%	34.16%	38.20%	33.61%	34.37%	31.38%	36.41%	33.75%	36.67%
Clear Glass	2.47%	1.07%	2.22%	1.25%	2.38%	1.41%	2.94%	1.24%	2.34%	1.76%	2.86%	1.04%	2.64%	1.34%
Brown Glass	1.48%	0.93%	2.03%	1.33%	1.31%	0.89%	2.13%	1.17%	1.30%	1.48%	0.89%	0.67%	1.98%	1.34%
Green Glass	0.49%	0.43%	0.70%	0.78%	0.41%	0.37%	0.91%	0.89%	0.52%	1.06%	0.47%	0.45%	0.44%	0.45%
Other Glass	0.32%	0.21%	0.08%	0.16%	0.24%	0.22%	0.15%	0.14%	0.71%	1.13%	0.25%	0.22%	0.12%	0.15%
TOTAL GLASS	4.77%	2.64%	5.03%	3.51%	4.36%	2.90%	6.13%	3.44%	4.88%	5.43%	4.47%	2.38%	5.16%	3.29%
Aluminum Cans	1.98%	2.92%	1.69%	2.58%	1.44%	2.46%	1.79%	2.66%	1.30%	2.89%	1.37%	2.31%	1.50%	2.48%
Other Aluminum	1.95%	0.21%	0.40%	0.55%	0.19%	0.22%	0.44%	0.55%	0.26%	1.06%	0.25%	0.37%	0.31%	0.60%
Non Ferrous	0.47%	0.43%	0.13%	0.08%	0.12%	0.15%	0.10%	0.14%	0.12%	0.85%	0.02%	0.07%	0.34%	0.37%
Food Cans	2.99%	2.64%	2.52%	2.19%	2.41%	2.08%	3.48%	2.62%	3.15%	3.11%	1.78%	1.49%	3.02%	2.46%
Ferrous	1.11%	0.86%	1.39%	1.01%	0.56%	0.45%	1.01%	0.69%	0.78%	1.13%	1.19%	0.74%	0.87%	0.82%
Oil filters	0.05%	0.07%	0.03%	0.08%	0.00%	0.00%	0.20%	0.28%	0.05%	0.07%	0.05%	0.07%	0.10%	0.22%
TOTAL METALS	6.79%	7.13%	6.16%	6.48%	4.72%	6.36%	7.02%	6.96%	6.66%	9.10%	4.66%	6.06%	6.14%	6.96%
PET #1	2.86%	5.13%	2.65%	4.45%	2.34%	4.32%	2.72%	5.02%	2.63%	4.52%	1.96%	3.80%	1.61%	3.29%
HDPE #2	1.95%	4.48%	1.93%	3.59%	2.12%	4.54%	2.01%	3.79%	1.87%	3.61%	1.39%	3.28%	1.84%	3.96%
Plastic Film	4.44%	9.48%	4.87%	10.15%	3.56%	8.64%	5.13%	11.36%	3.62%	6.61%	6.78%	14.37%	5.15%	10.31%
Other Plastic	7.65%	12.54%	8.25%	12.41%	8.27%	13.48%	6.97%	11.29%	8.05%	11.64%	8.50%	13.18%	7.16%	10.98%
TOTAL PLASTIC	16.91%	31.65%	17.70%	30.60%	16.28%	30.98%	16.83%	31.46%	16.18%	26.68%	18.63%	34.62%	16.96%	28.53%
Food Waste	18.52%	8.48%	16.97%	8.67%	18.15%	9.01%	13.15%	8.61%	15.89%	6.99%	19.06%	8.12%	17.53%	8.89%
Wood Waste	1.14%	0.71%	1.23%	0.62%	1.56%	0.74%	0.74%	0.48%	1.35%	0.85%	1.02%	0.60%	2.03%	1.12%
Textiles	6.64%	3.78%	4.39%	2.89%	6.11%	4.47%	4.42%	2.89%	6.13%	4.59%	5.07%	3.95%	4.26%	3.14%
Diapers	4.44%	2.57%	4.95%	3.12%	5.47%	3.13%	7.31%	3.72%	5.16%	3.03%	4.67%	2.46%	4.76%	3.73%
Other Organics	3.26%	1.78%	2.86%	1.72%	3.43%	2.31%	4.69%	2.89%	3.34%	2.66%	3.28%	2.46%	4.28%	3.73%
TOTAL ORGANICS	34.00%	17.32%	30.41%	17.02%	34.72%	19.66%	30.31%	16.86%	31.88%	16.14%	33.09%	17.67%	32.66%	19.94%
Fines	0.67%	0.50%	0.98%	0.78%	0.66%	0.60%	0.66%	0.62%	1.11%	0.92%	0.89%	0.67%	0.94%	1.12%
Other Inorganics	2.84%	1.85%	3.19%	2.11%	3.87%	1.94%	2.82%	1.45%	5.16%	2.75%	4.30%	2.31%	3.05%	2.39%
TOTAL INORGANICS	3.51%	2.35%	4.15%	2.89%	4.53%	2.53%	3.48%	2.06%	6.28%	3.67%	5.19%	2.98%	3.99%	3.51%
HHW	1.09%	0.86%	0.86%	0.62%	0.44%	0.30%	1.25%	0.83%	0.60%	0.21%	0.55%	0.30%	1.36%	0.67%
Electronic Waste	1.78%	0.93%	0.54%	0.31%	1.27%	0.46%	0.81%	0.48%	1.11%	0.49%	2.04%	0.67%	0.80%	0.45%
TOTAL SPECIAL WASTE	2.88%	1.78%	1.39%	0.94%	1.70%	0.74%	2.06%	1.31%	1.81%	0.71%	2.68%	0.97%	2.18%	1.12%
TOTAL COMPOSITION	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

**Table 3(cont.) - 2006-2007 Waste Composition and Comparison
Results in Respective Solid Waste Management Districts**

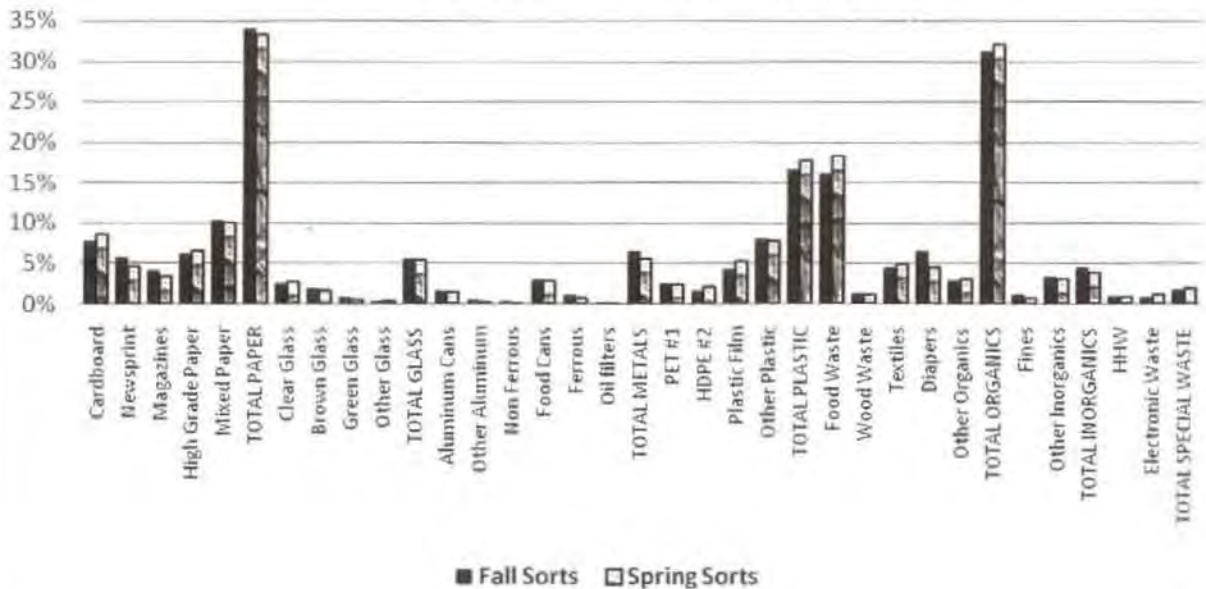
	Dist.L-O'Fallon		Dist.L-St. Louis		Dist.N-Reeds Spring		Dist.O-Springfield		Dist.P-West Plains		Dist.R-St. Francois Co.		Dist.S-Pemiscot Co.		Dist.T-Osage Beach	
	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Cardboard	6.77%	13.21%	7.78%	12.78%	8.43%	14.21%	7.56%	13.27%	8.28%	12.10%	7.71%	13.47%	9.41%	13.74%	8.58%	13.68%
Newsprint	5.90%	4.19%	6.47%	4.83%	5.82%	4.05%	7.04%	4.11%	3.94%	2.93%	5.38%	3.89%	3.33%	2.88%	4.48%	2.90%
Magazines	4.14%	1.67%	4.51%	2.22%	3.76%	1.93%	4.51%	1.51%	3.82%	2.10%	3.19%	1.32%	3.19%	1.74%	4.15%	1.79%
High Grade Paper	6.51%	6.51%	6.34%	6.30%	7.44%	8.03%	5.79%	7.64%	5.58%	6.09%	5.58%	5.68%	4.79%	6.09%	5.95%	6.74%
Mixed Paper	10.39%	12.85%	11.19%	12.59%	8.73%	12.42%	9.64%	13.48%	12.62%	12.70%	11.56%	12.61%	10.50%	11.66%	9.70%	11.76%
TOTAL PAPER	33.71%	38.23%	36.29%	38.62%	34.19%	40.64%	36.53%	40.01%	36.24%	35.91%	33.42%	36.99%	31.21%	35.99%	32.65%	36.86%
Clear Glass	2.07%	1.21%	2.04%	0.93%	3.94%	2.06%	3.02%	1.15%	3.57%	1.50%	2.47%	0.93%	2.61%	1.18%	2.83%	1.15%
Brown Glass	1.61%	1.12%	1.86%	1.02%	2.25%	1.13%	2.08%	1.23%	2.24%	1.20%	1.51%	0.97%	1.43%	0.87%	2.48%	1.22%
Green Glass	0.85%	0.84%	1.10%	0.74%	0.52%	0.46%	0.74%	0.72%	0.37%	0.30%	0.26%	0.23%	0.65%	0.56%	1.13%	0.86%
Other Glass	0.41%	0.56%	0.21%	0.28%	0.47%	0.33%	0.40%	0.29%	0.22%	0.15%	0.26%	0.26%	0.32%	0.31%	0.85%	0.57%
TOTAL GLASS	4.93%	3.72%	5.22%	2.96%	7.18%	3.98%	6.24%	3.39%	6.41%	3.16%	4.49%	2.40%	5.02%	2.92%	7.08%	3.80%
Aluminum Cans	1.34%	2.42%	1.31%	2.31%	1.78%	2.52%	1.59%	2.24%	1.62%	2.78%	1.22%	2.18%	1.80%	2.73%	2.00%	3.08%
Other Aluminum	0.35%	0.85%	0.21%	0.37%	0.35%	0.53%	0.50%	0.79%	0.22%	0.45%	0.34%	0.86%	0.35%	0.44%	0.65%	0.88%
Non Ferrous	0.12%	0.19%	0.12%	0.09%	0.16%	0.20%	0.45%	0.43%	0.15%	0.15%	0.18%	0.23%	0.12%	0.12%	0.85%	0.84%
Food Cans	2.22%	1.77%	2.50%	2.22%	3.22%	2.46%	3.82%	2.87%	2.87%	2.78%	3.53%	2.73%	3.38%	3.11%	2.90%	2.15%
Ferrous	0.55%	0.74%	0.85%	0.74%	0.40%	0.33%	1.07%	0.72%	1.00%	0.98%	0.38%	0.34%	0.92%	0.75%	0.95%	0.72%
Oil filters	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.52%	0.43%	0.02%	0.00%	0.00%	0.00%	0.05%	0.12%	0.13%	0.14%
TOTAL METALS	4.68%	6.77%	6.00%	6.74%	6.92%	6.04%	7.93%	7.28%	6.89%	7.14%	6.63%	6.34%	6.61%	7.27%	7.48%	7.60%
PET #1	2.48%	6.23%	2.23%	4.07%	2.68%	4.65%	2.65%	4.69%	2.77%	4.56%	2.82%	5.45%	2.91%	4.72%	2.80%	4.73%
HDPE #2	1.28%	2.70%	1.52%	3.24%	1.97%	3.92%	2.11%	4.83%	2.14%	4.58%	2.03%	4.59%	2.06%	4.54%	2.05%	4.51%
Plastic Film	3.24%	7.81%	5.00%	10.93%	5.26%	9.89%	5.23%	9.95%	4.81%	9.92%	4.26%	9.81%	5.32%	10.94%	5.38%	11.11%
Other Plastic	7.30%	13.30%	6.92%	12.41%	8.34%	11.42%	7.41%	11.90%	9.58%	14.42%	9.83%	14.17%	7.70%	11.87%	7.93%	11.68%
TOTAL PLASTIC	14.30%	30.06%	15.68%	30.65%	18.24%	29.68%	17.39%	31.36%	19.30%	33.61%	18.67%	34.03%	17.98%	32.07%	18.16%	32.03%
Food Waste	17.95%	8.09%	16.71%	7.59%	17.07%	9.63%	15.58%	7.26%	17.11%	8.56%	20.64%	9.34%	18.52%	9.51%	15.80%	8.95%
Wood Waste	1.05%	0.66%	1.43%	1.11%	1.10%	0.48%	1.24%	0.58%	1.25%	0.83%	0.93%	0.62%	0.97%	0.44%	0.83%	0.57%
Textiles	3.82%	2.79%	4.18%	3.52%	4.11%	2.52%	3.00%	1.73%	4.11%	2.70%	4.10%	3.27%	5.80%	3.60%	4.58%	3.30%
Diapers	6.04%	3.16%	5.46%	3.06%	5.54%	2.86%	6.02%	3.17%	5.51%	3.23%	5.14%	2.28%	7.31%	3.79%	4.33%	2.58%
Other Organics	7.38%	4.09%	3.57%	2.98%	1.71%	1.00%	1.14%	1.01%	2.14%	2.03%	1.40%	1.40%	0.97%	0.87%	1.85%	1.72%
TOTAL ORGANICS	36.06%	18.70%	31.35%	18.24%	29.64%	16.47%	26.98%	13.77%	30.12%	17.36%	32.23%	16.90%	33.67%	18.21%	27.18%	16.12%
Fines	1.17%	1.21%	1.01%	0.93%	0.86%	0.80%	0.87%	1.08%	0.87%	1.05%	1.64%	1.40%	0.79%	0.68%	1.18%	1.00%
Other Inorganics	4.14%	1.58%	4.46%	2.41%	2.46%	1.39%	2.53%	1.44%	1.12%	0.98%	2.31%	0.93%	3.51%	2.05%	2.60%	1.50%
TOTAL INORGANICS	5.31%	2.79%	5.49%	3.33%	3.16%	2.19%	3.39%	2.52%	2.00%	2.03%	3.96%	2.34%	4.30%	2.73%	3.78%	2.61%
HHW	0.82%	0.47%	0.52%	0.37%	1.13%	0.73%	1.68%	1.08%	0.47%	0.45%	0.99%	0.55%	0.86%	0.56%	1.20%	0.93%
Electronic Waste	0.29%	0.28%	0.46%	0.19%	0.66%	0.27%	0.84%	0.58%	0.57%	0.45%	0.73%	0.47%	0.44%	0.25%	2.30%	1.15%
TOTAL SPECIAL WASTE	1.11%	0.74%	0.98%	0.56%	1.78%	1.00%	2.53%	1.66%	1.06%	0.90%	1.71%	1.01%	1.29%	0.81%	3.50%	2.08%
TOTAL COMPOSITION	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 4 - Lowest and Highest Results by Category and Subcategory

	Site(s) with LOWEST Result By Category		Site(s) with HIGHEST Result By Category	
	%by Wt.	%by Vol.	%by Wt.	%by Vol.
Cardboard	O'Fallon(6.77%)	West Plains(12.1%)	Pemiscott Co.(9.41%)	Columbia(15.34%)
Newsprint	Pemiscott Co.(3.33%)	Columbia(2.76%)	Springfield(7.04%)	St. Louis(4.63%)
Magazines	Maryville(2.77%)	Maryville(1.21%)	St. Louis & Springfield(4.51%)	Lee's Summit(2.48%)
High Grade Paper	Columbia(4.75%) & Pemiscott Co.(4.79%)	Columbia(4.17%)	Phelps Co.(9.21%)	Courtney Ridge(6.4%)
Mixed Paper	Maryville & Courtney Ridge(8.64%)	Courtney Ridge(10.6%)	West Plains(12.62%)	Springfield(13.48%)
TOTAL PAPER	Maryville(31.16%) & Pemiscott Co.(31.21%)	Macon(34.37%)	St. Louis(36.29%)	Reeds Spring(40.64%) & Springfield(40.01%)
Clear Glass	St. Louis(2.04%) & O'Fallon(2.07%)	St. Louis & St. Francois Co.(.93%)	Reeds Spring(3.94%)	Reeds Spring(2.06%)
Brown Glass	Columbia(.89%)	Columbia(.67%)	Osage Beach(2.48%)	Macon(1.48%)
Green Glass	St. Francois Co.(.26%)	St. Francois Co.(.23%)	St. Louis(1.1%) & Osage Beach(1.13%)	Macon(1.06%)
Other Glass	St. Joseph(.08%)	Courtney Ridge(.14%) & Phelps Co.(.15%) & West Plains(.15%) & St. Joseph(.16%)	Macon(.71%)	Macon(1.13%)
TOTAL GLASS	Lee's Summit(4.36%)	Columbia(2.38%) & St. Francois Co.(2.4%)	Reeds Spring(7.18%) & Osage Beach(7.08%)	Macon(5.43%)
Aluminum Cans	St. Francois Co.(1.22%)	St. Francois Co.(2.18%)	Osage Beach(2%)	Osage Beach(3.08%)
Other Aluminum	Lee's Summit(.19%), St. Louis(.21%), West Plains(.22%)	Maryville(.21%) & Lee's Summit(.22%)	Maryville(1.95%)	Macon(1.06%)
Non Ferrous	Columbia(.02%)	St. Joseph(.08%), Columbia(.07%), St. Louis(.09%)	Osage Beach(.85%)	Macon(.85%)
Food Cans	Columbia(1.76%)	Columbia(1.46%)	Springfield(3.82%)	Pemiscott Co.(3.11%) & Macon(3.11%)
Ferrous	Reeds Spring(.4%) & St. Francois Co.(.39%)	Reeds Spring(.33%) & St. Francois Co.(.34%)	St. Joseph(1.39%)	Macon(1.13%)
Oil filters	0 found at Lee's Summit, Reeds Spring, O'Fallon, St. Louis, and St. Francois Co.	0 found at Lee's Summit, Reeds Spring, O'Fallon, St. Louis, and St. Francois Co.	Courtney Ridge(.2%)	Springfield(.43%)
TOTAL METALS	O'Fallon(4.58%)	Columbia(5.06%)	Springfield(7.93%)	Macon(9.1%)
PET #1	Phelps Co.(1.81%)	Phelps Co.(3.29%)	Pemiscott Co.(2.91%)	O'Fallon(6.23%)
HDPE #2	O'Fallon(1.28%)	O'Fallon(2.7%)	West Plains(2.14%)	Springfield(4.83%)
Plastic Film	O'Fallon(3.24%)	O'Fallon(7.81%)	Columbia(6.78%)	Columbia(14.37%)
Other Plastic	St. Louis(6.92%) & Courtney Ridge(6.97%)	Phelps Co.(10.98%)	St. Francois Co.(9.83%)	West Plains(14.42%)
TOTAL PLASTIC	O'Fallon(14.3%)	Macon(28.58%) & Phelps Co.(28.53%)	West Plains(19.3%)	Columbia(34.82%)
Food Waste	Courtney Ridge(13.15%)	Courtney Ridge(6.61%)	St. Francois Co.(20.64%)	Reeds Spring(9.63%)
Wood Waste	Courtney Ridge(.74%)	Courtney Ridge(.48%), Reeds Spring(.48%), Pemiscott Co.(.44%)	Phelps Co.(2.03%)	Phelps Co.(1.12%) & St. Louis(1.11%)
Textiles	Springfield(3%)	Springfield(1.73%)	Maryville(6.64%)	Macon(4.59%)
Diapers	Osage Beach(4.33%)	St. Francois Co.(2.26%)	Courtney Ridge & Pemiscott Co.(7.31%)	Pemiscott Co.(3.79%)
Other Organics	Pemiscott Co.(.97%)	Pemiscott Co.(.87%)	O'Fallon(7.38%)	O'Fallon(4.09%)
TOTAL ORGANICS	Springfield(26.98%)	Springfield(13.77%)	O'Fallon(36.05%)	Lee's Summit(19.66%)
Fines	Reeds Spring(.66%), Maryville(.67%), Lee's Summit(.66%), Courtney Ridge(.66%)	Maryville(.5%)	St. Francois Co.(1.64%)	St. Francois Co.(1.4%)
Other Inorganics	West Plains(1.12%)	West Plains(.98%) & St. Francois Co.(.93%)	Macon(5.16%)	Macon(2.75%)
TOTAL INORGANICS	West Plains(2%)	West Plains(2.03%) & Courtney Ridge(2.06%)	Macon(6.28%)	Macon(3.67%)
HHW	West Plains(.47%) & Lee's Summit(.44%)	St. Francois Co.(.16%)	Springfield(1.68%)	Springfield(1.08%)
Electronic Waste	O'Fallon(.29%)	St. Louis(.19%)	Osage Beach(2.3%)	Osage Beach(1.15%)
TOTAL SPECIAL WASTE	St. Louis(.98%)	St. Louis(.56%)	Osage Beach(3.5%)	Osage Beach(2.08%)

Seasonal - Summarized data by season is listed in Table 5 and exhibited in Charts 4 and 5. There was very little variance by season as a percentage by weight with the largest difference being observed in Food Waste(1.8 more in spring). The largest variance as a percentage by volume between the seasons occurred in Cardboard(2.34 less in the spring) and Plastic film(2.32 more in the spring).

**Chart 4 - 2006-2007 Seasonal Comparison
By Material as % of Weight**



**Chart 5 - 2006-2007 Seasonal Comparison
By Material as % of Volume**

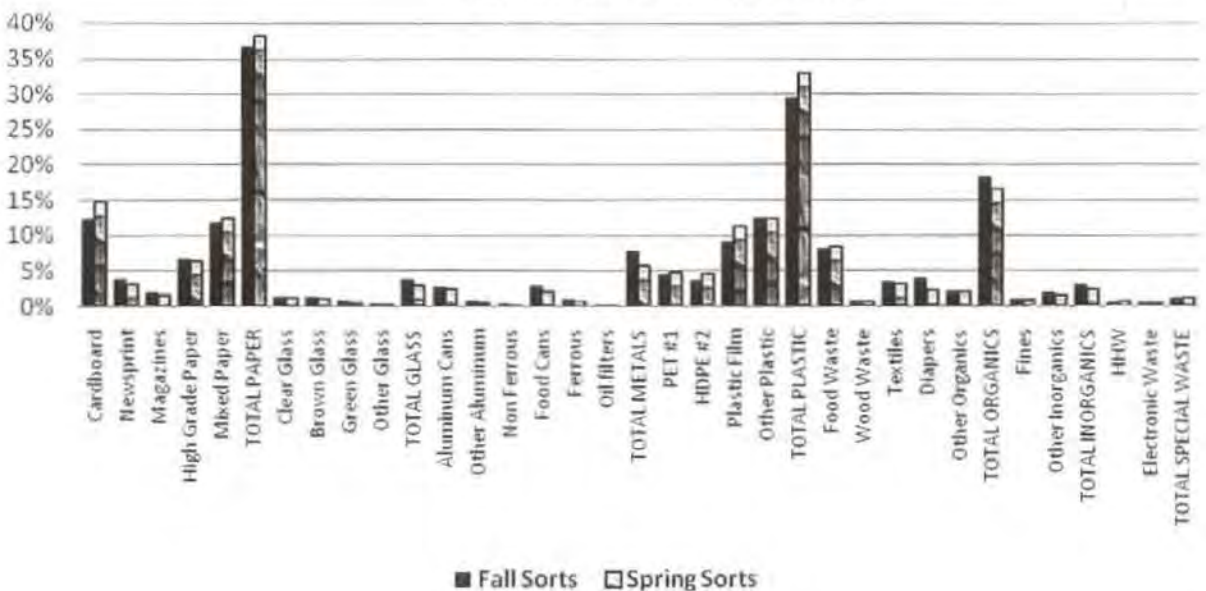


Table 5 - 2006-2007 Waste Composition and Comparison by Season

	TOTAL FALL SORTS				TOTAL SPRING SORTS				Difference Fall to Spring	
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	%by Wt.	%by Vol.
Cardboard	2,141	7.69%	29.878	12.36%	2,743	8.65%	38.9	14.70%	0.97%	2.34%
Newsprint	1,584	5.69%	9.260	3.83%	1,492	4.71%	8.375	3.17%	-0.98%	-0.67%
Magazines	1,122	4.03%	4.950	2.05%	1,059	3.34%	4.075	1.54%	-0.69%	-0.51%
High Grade Paper	1,730	6.21%	16.100	6.66%	2,079	6.56%	16.85	6.37%	0.35%	-0.29%
Mixed Paper	2,882	10.35%	28.450	11.77%	3,193	10.07%	32.775	12.39%	-0.28%	0.62%
TOTAL PAPER	9,459	33.97%	88.638	36.68%	10,566	33.34%	100.975	38.16%	0.63%	-1.49%
Clear Glass	718	2.58%	3.250	1.34%	898	2.83%	3.3	1.25%	0.25%	-0.10%
Brown Glass	509	1.83%	3.010	1.25%	545	1.72%	2.575	0.97%	-0.11%	-0.27%
Green Glass	215	0.77%	1.900	0.79%	159	0.50%	1.175	0.44%	-0.27%	-0.34%
Other Glass	85	0.31%	0.960	0.40%	108	0.34%	0.725	0.27%	0.04%	-0.12%
TOTAL GLASS	1,527	5.48%	9.12	3.77%	1,710	5.40%	7.775	2.94%	0.09%	0.84%
Aluminum Cans	461	1.66%	6.650	2.75%	485	1.53%	6.425	2.43%	-0.13%	-0.32%
Other Aluminum	111	0.40%	1.725	0.71%	89	0.28%	1.15	0.43%	-0.12%	-0.28%
Non Ferrous	89	0.32%	1.050	0.43%	48	0.15%	0.375	0.14%	-0.17%	-0.29%
Food Cans	825	2.96%	6.900	2.86%	922	2.91%	5.525	2.09%	-0.05%	-0.77%
Ferrous	290	1.04%	2.260	0.94%	228	0.72%	1.45	0.55%	-0.32%	-0.39%
Oil filters	31	0.11%	0.251	0.10%	17	0.05%	0.275	0.10%	-0.06%	0.00%
TOTAL METALS	1,807	6.49%	18.836	7.79%	1,789	5.64%	15.2	5.75%	0.85%	2.05%
PET #1	717	2.58%	10.700	4.43%	799	2.52%	12.75	4.82%	-0.05%	0.39%
HDPE #2	455	1.63%	8.575	3.55%	674	2.13%	11.975	4.53%	0.49%	0.98%
Plastic Film	1,204	4.32%	21.800	9.02%	1,665	5.25%	30	11.34%	0.93%	2.32%
Other Plastic	2,262	8.12%	30.225	12.51%	2,494	7.87%	32.65	12.34%	-0.26%	-0.17%
TOTAL PLASTIC	4,638	16.66%	71.3	29.50%	5,632	17.77%	87.375	33.02%	-1.11%	-3.52%
Food Waste	4,480	16.09%	19.500	8.07%	5,774	18.22%	22.325	8.44%	2.13%	0.37%
Wood Waste	342	1.23%	1.725	0.71%	367	1.16%	1.7	0.64%	-0.07%	-0.07%
Textiles	1,236	4.44%	8.125	3.36%	1,581	4.99%	8.475	3.20%	0.55%	-0.16%
Diapers	1,817	6.53%	9.475	3.92%	1,447	4.57%	5.825	2.20%	-1.96%	-1.72%
Other Organics	801	2.88%	5.100	2.11%	965	3.04%	5.625	2.13%	0.17%	0.02%
TOTAL ORGANICS	8,676	31.16%	43.925	18.18%	10,134	31.97%	43.95	16.61%	-0.81%	1.56%
Fines	322	1.16%	2.300	0.95%	232	0.73%	2.15	0.81%	-0.42%	-0.14%
Other Inorganics	929	3.34%	4.950	2.05%	983	3.10%	4.175	1.58%	-0.24%	-0.47%
TOTAL INORGANICS	1,251	4.49%	7.25	3.00%	1,215	3.83%	6.325	2.39%	0.66%	0.61%
HHW	273	0.98%	1.500	0.62%	274	0.86%	1.55	0.59%	-0.12%	-0.03%
Electronic Waste	213	0.76%	1.100	0.46%	375	1.18%	1.425	0.54%	0.42%	0.08%
TOTAL SPECIAL WASTE	486	1.75%	2.6	1.08%	649	2.05%	2.975	1.12%	-0.30%	-0.05%
TOTAL COMPOSITION	27,844	100%	241.669	100%	31,695	100%	264.575	100%	0%	0%

1996-1997 WCS Comparison - Summarized 2006-2007 waste sort totals compared to 1996-1997 results are displayed in Table 6 and exhibited in Charts 6 and 7. The categories and subcategories with the most significant changes as a percentage by weight were Newsprint(2.73 less), High Grade Paper(2.8 more), Mixed Paper (5.3 less), Total Paper(3.77 less) and Total Plastic(2.85 more) while the categories and subcategories with greatest variance as a percentage of volume were Cardboard(1.99 more), Newsprint(2.12 less), High Grade Paper(3.21 more), Mixed Paper(5.61 less), and Total Paper(2.65 less).

Chart 6 - 2006-2007 vs. 1996-1997 By Material as % of Weight
(special waste not measured in 1996-1997)

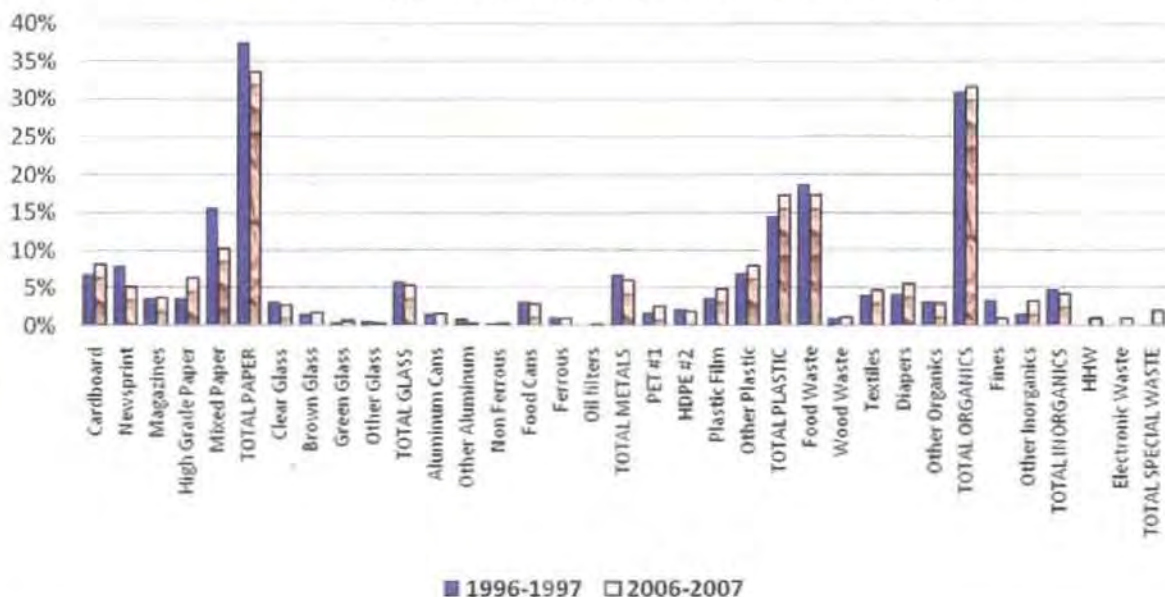


Chart 7 - 2006-2007 vs. 1996-1997 By Material as % of Volume
(special waste not measured in 1996-1997)

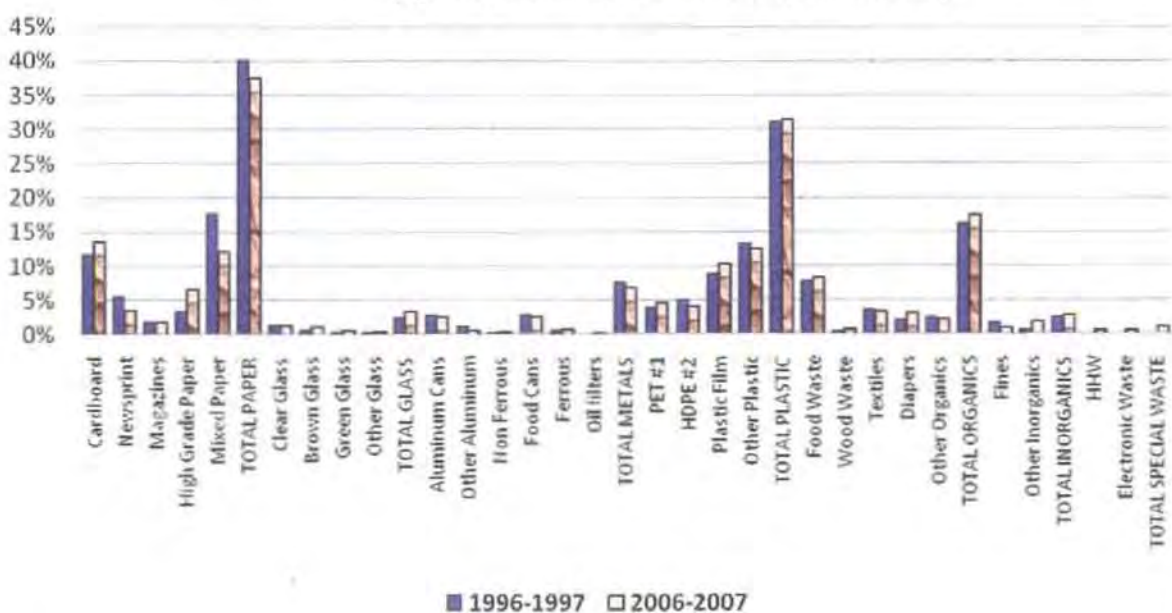
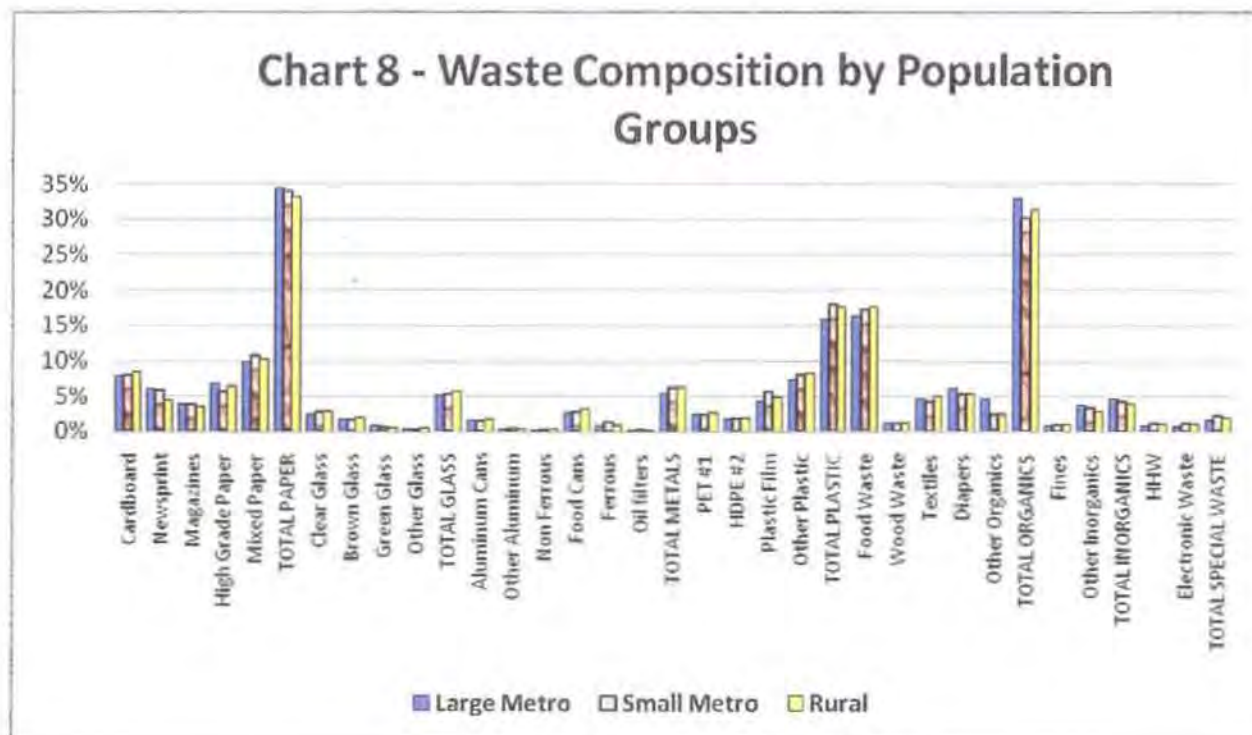


Table 6 - Waste Composition and Comparison 2006-2007 to 1996-1997 Results

	TOTAL 2006-2007 SORTS				1996-1997 WCS Avg.		Diff. 2006-2007 vs. 1996-1997	
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Cardboard	4,884	8.20%	68.778	13.59%	6.70%	11.60%	1.50%	1.99%
Newsprint	3,076	5.17%	17.635	3.48%	7.90%	5.60%	-2.73%	-2.12%
Magazines	2,181	3.66%	9.025	1.78%	3.70%	1.90%	-0.04%	-0.12%
High Grade Paper	3,809	6.40%	32.95	6.51%	3.60%	3.30%	2.80%	3.21%
Mixed Paper	6,075	10.20%	61.225	12.09%	15.50%	17.70%	-5.30%	-5.61%
TOTAL PAPER	20,025	33.63%	189.613	37.45%	37.40%	40.10%	-3.77%	-2.65%
Clear Glass	1,616	2.71%	6.55	1.29%	3.20%	1.30%	-0.49%	-0.01%
Brown Glass	1,054	1.77%	5.585	1.10%	1.50%	0.70%	0.27%	0.40%
Green Glass	374	0.63%	3.075	0.61%	0.40%	0.20%	0.23%	0.41%
Other Glass	193	0.32%	1.685	0.33%	0.60%	0.30%	-0.28%	0.03%
TOTAL GLASS	3,237	5.44%	16.895	3.34%	5.70%	2.50%	-0.26%	0.84%
Aluminum Cans	946	1.59%	13.075	2.58%	1.50%	2.80%	0.09%	-0.22%
Other Aluminum	200	0.34%	2.875	0.57%	0.80%	1.10%	-0.46%	-0.53%
Non Ferrous	137	0.23%	1.425	0.28%	0.20%	0.20%	0.03%	0.08%
Food Cans	1,747	2.93%	12.425	2.45%	3.10%	2.80%	-0.17%	-0.35%
Ferrous	518	0.87%	3.71	0.73%	1.10%	0.70%	-0.23%	0.03%
Oil filters	48	0.08%	0.526	0.10%	0.10%	0.00%	-0.02%	0.10%
TOTAL METALS	3,596	6.04%	34.036	6.72%	6.80%	7.60%	-0.76%	-0.88%
PET #1	1,516	2.55%	23.45	4.63%	1.70%	3.90%	0.85%	0.73%
HDPE #2	1,129	1.90%	20.55	4.06%	2.10%	5.10%	-0.20%	-1.04%
Plastic Film	2,869	4.82%	51.8	10.23%	3.70%	8.80%	1.12%	1.43%
Other Plastic	4,756	7.99%	62.875	12.42%	6.90%	13.30%	1.09%	-0.88%
TOTAL PLASTIC	10,270	17.25%	158.675	31.34%	14.40%	31.10%	2.85%	0.24%
Food Waste	10,254	17.22%	41.825	8.26%	18.70%	7.80%	-1.48%	0.46%
Wood Waste	709	1.19%	3.425	0.68%	0.80%	0.50%	0.39%	0.18%
Textiles	2,817	4.73%	16.6	3.28%	4.00%	3.50%	0.73%	-0.22%
Diapers	3,264	5.48%	15.3	3.02%	4.20%	2.10%	1.28%	0.92%
Other Organics	1,766	2.97%	10.725	2.12%	3.20%	2.40%	-0.23%	-0.28%
TOTAL ORGANICS	18,810	31.59%	87.875	17.36%	30.90%	16.30%	0.69%	1.06%
Fines	554	0.93%	4.45	0.88%	3.30%	1.80%	-2.37%	-0.92%
Other Inorganics	1,912	3.21%	9.125	1.80%	1.50%	0.70%	1.71%	1.10%
TOTAL INORGANICS	2,466	4.14%	13.575	2.68%	4.80%	2.50%	-0.66%	0.18%
HHW	547	0.92%	3.05	0.60%	n/a	n/a	0.92%	0.60%
Electronic Waste	588	0.99%	2.525	0.50%	n/a	n/a	0.99%	0.50%
TOTAL SPECIAL WASTE	1,135	1.91%	5.575	1.10%			1.91%	1.10%
TOTAL COMPOSITION	59,539	100%	506.244	100%	100%	100%	0%	0%

Population Density - One goal of the waste composition study was to see if population density has an effect on waste composition. Therefore, the results were compared by dividing the sampled facilities into three groups based on the population density of the areas served. Large Metro includes Courtney Ridge, Lee's Summit, O'Fallon, and St. Louis. Small Metro includes Columbia, St. Joseph, and Springfield. Rural includes Macon, Maryville, Osage Beach, Pemiscot Co., Phelps Co., St. Francois Co., and West Plains. The grouped data is displayed in Table 7 and Chart 8.



The Large Metro group had more Organics as a percentage of weight than the other two groups, due to 2.3% more Other Organics than both Small Metro and Rural communities. The primary item placed in this category during the sorts was kitty and dog litter heavy laden with fecal matter. This is a reasonable difference in population densities and the greater likelihood of indoor pets. Further, yard waste was noted in multiple loads by the sorters at the two locations in the Kansas City metro area. This could be occurring due to confusion on behalf of citizens because various haulers service the area, some of which accept yard waste along with the trash and haul it to a Kansas landfill where yard waste is allowed in landfills. Large Metro also had less Total Plastic(15.8) as a percentage of weight than both the Small Metro(17.9) and Rural(17.6) groups, particularly in the Plastic Film and Other Plastic subcategories.

Table 7 - Waste Composition and Comparison by Population Density

	Large Metro: Courtney Ridge, Lee's Summit, O'Fallon, St. Louis				Small Metro: Columbia, St. Joseph, Springfield				Rural: Macon, Maryville, Osage Beach, Pemiscot Co., Phelps Co., St. Francois Co., West Plains			
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.
Cardboard	1,177	7.9%	18.83	13.59%	947	8.0%	14.20	14.18%	2,760	8.4%	37.75	13.38%
Newsprint	897	6.0%	4.90	3.96%	690	5.8%	3.68	3.66%	1,489	4.5%	9.06	3.21%
Magazines	589	4.0%	2.40	1.94%	447	3.8%	1.80	1.80%	1,145	3.5%	4.83	1.71%
High Grade Paper	1,002	6.7%	8.43	6.81%	667	5.7%	5.73	5.71%	2,140	6.5%	16.80	6.66%
Mixed Paper	1,457	9.8%	14.68	11.86%	1,259	10.7%	13.05	13.01%	3,358	10.2%	33.50	11.67%
TOTAL PAPER	5,122	34.4%	47.23	38.15%	4,010	34.0%	38.45	38.34%	10,893	33.2%	103.94	36.84%
Clear Glass	356	2.4%	1.50	1.21%	320	2.7%	1.15	1.15%	940	2.9%	3.90	1.38%
Brown Glass	257	1.7%	1.30	1.05%	196	1.7%	1.08	1.07%	601	1.8%	3.21	1.14%
Green Glass	119	0.8%	0.88	0.71%	75	0.6%	0.65	0.65%	180	0.5%	1.55	0.55%
Other Glass	37	0.2%	0.35	0.28%	29	0.2%	0.23	0.22%	127	0.4%	1.11	0.39%
TOTAL GLASS	769	5.2%	4.03	3.25%	620	5.3%	3.10	3.09%	1,848	5.6%	9.77	3.46%
Aluminum Cans	221	1.5%	3.08	2.48%	182	1.5%	2.38	2.37%	543	1.7%	7.63	2.70%
Other Aluminum	45	0.3%	0.55	0.44%	45	0.4%	0.58	0.57%	110	0.3%	1.75	0.62%
Non Ferrous	17	0.1%	0.18	0.14%	24	0.2%	0.20	0.20%	95	0.3%	1.05	0.37%
Food Cans	399	2.7%	2.73	2.20%	319	2.7%	2.13	2.12%	1,029	3.1%	7.58	2.69%
Ferrous	111	0.7%	0.80	0.65%	143	1.2%	0.83	0.82%	264	0.8%	2.09	0.74%
Oil filters	8	0.1%	0.10	0.08%	24	0.2%	0.20	0.20%	16	0.0%	0.23	0.08%
TOTAL METALS	801	5.4%	7.43	6.00%	737	6.2%	6.30	6.28%	2,058	6.3%	20.31	7.20%
PET #1	365	2.5%	6.05	4.89%	285	2.4%	4.33	4.31%	866	2.6%	13.08	4.83%
HDPE #2	263	1.8%	4.50	3.64%	213	1.8%	3.93	3.91%	653	2.0%	12.13	4.30%
Plastic Film	630	4.2%	12.06	9.76%	668	5.6%	11.53	11.49%	1,573	4.8%	28.20	10.00%
Other Plastic	1,101	7.4%	15.55	12.56%	949	8.0%	12.53	12.48%	2,708	8.2%	34.70	12.30%
TOTAL PLASTIC	2,359	15.8%	38.18	30.84%	2,113	17.9%	32.30	32.21%	5,798	17.6%	88.10	31.23%
Food Waste	2,445	16.4%	9.65	7.80%	2,030	17.2%	8.03	8.00%	5,779	17.6%	24.15	8.56%
Wood Waste	177	1.2%	0.88	0.71%	137	1.2%	0.60	0.60%	395	1.2%	1.95	0.69%
Textiles	692	4.6%	4.25	3.43%	489	4.1%	2.85	2.84%	1,636	5.0%	9.50	3.37%
Diapers	909	6.1%	4.08	3.28%	616	5.2%	2.93	2.92%	1,739	5.3%	8.30	2.94%
Other Organics	702	4.7%	3.73	3.01%	285	2.4%	1.73	1.72%	778	2.4%	5.28	1.87%
TOTAL ORGANICS	4,925	33.1%	22.58	18.24%	3,557	30.2%	16.13	16.08%	10,328	31.4%	49.18	17.43%
Fines	127	0.9%	1.00	0.81%	107	0.9%	0.85	0.85%	320	1.0%	2.60	0.92%
Other Inorganics	563	3.8%	2.25	1.82%	394	3.3%	1.95	1.94%	955	2.9%	4.93	1.75%
TOTAL INORGANICS	690	4.8%	3.25	2.63%	501	4.2%	2.80	2.79%	1,275	3.9%	7.53	2.67%
HHW	114	0.8%	0.63	0.50%	122	1.0%	0.68	0.67%	311	0.9%	1.75	0.62%
Electronic Waste	110	0.7%	0.45	0.36%	136	1.2%	0.53	0.52%	342	1.0%	1.55	0.55%
TOTAL SPECIAL WASTE	224	1.5%	1.08	0.87%	258	2.2%	1.20	1.20%	653	2.0%	3.30	1.17%
TOTAL COMPOSITION	14,890	100%	123.78	100%	11,796	100%	100.28	100%	32,853	100%	282.12	100%

Special Consideration- As mentioned earlier, the Special Waste category including Electronics and Household Hazardous Waste subcategories were added for the 2006-2007 waste composition study. Items were recorded by weight, volume, and description at the conclusion of each sort. The itemization for each facility is included in the tables for each chapter. Batteries of all types (alkaline, lithium, ni-cad, etc.) were collected at each sort and accounted for by weight and volume in the HHW subcategory. Further, the batteries were retained after each sort and delivered to the Rechargeable Battery Recycling Corporation (RBRC) for analysis. The weight and count of batteries found is included in the Special Waste chart for each site. Battery totals for all sites combined were as follows:

	Quantity(all types)	Weight
Fall 2006 Sorts	333	29 lbs. 5.8 oz.
Spring 2007 Sorts	353	36 lbs. 2 oz.
TOTAL	686	65 lbs. 7.8 oz.
Avg. per Site	46	4 lbs. 5.9 oz.

Density plays an important role when considering some materials. For instance, while plastics comprise 17.28% by weight of MSW going into Missouri landfills, they comprise 31.34% by volume. Landfills charge by weight, but their space is consumed by volume.

Individual Facility Results - Results by waste category and findings at each location are presented in Appendixes 1 through 15 along with a description of services and programs in each sampled facility's service area. Demographic information for each location is from the U.S. Census Bureau 2000 census data. Waste and recycling tonnages are taken from site interviews, solid waste management district personnel, and the Department of Natural Resources Solid Waste Management Program

Conclusions

Changes in the MSW waste stream over the past decade have been less substantial than changes over the previous decade. Much of the difference between 20 years and 10 years ago was attributed to the passage of Senate Bill 530 in 1990 that set state-wide goals for solid waste recovery and reduction, established additional landfill permitting requirements, and banned major appliances, yard waste, waste oil, whole tires, and lead acid batteries from landfills.

Still, the composition of MSW in 2006-2007 reflects several differences in society and the overall waste generation and management in Missouri. Statewide efforts by the Department of Natural Resources Solid Waste Management Program and the solid waste management districts have continued to impact the statewide waste stream. The estimated statewide diversion rate as calculated by the DNR SWMP has continued to rise over the past decade from 30% in 1997 to 44% in 2006.

Three observations are offered regarding societal changes over the past decade that are affecting the Missouri MSW waste stream:

1. Technological advancements and popularity of web-based publications and distributions over the past decade have no doubt heavily influenced the decline in Total Paper (3.77% less than 1996-1997 WCS). This represents a difference of over 101,115 tons annually in Missouri's MSW waste stream. Newsprint alone declined 2.73% by weight which would be the equivalent of 73,221 tons per year. The smaller web width (width of newspaper page before folded in two) has become common in many newspaper markets, as well as using 21% lighter paper weight than was used 10 years ago(Abitibi). Recycling program growth combined with more environmental practices by the newspaper companies and the development of the electronic media market has impacted the paper going into Missouri landfills.

2. Technological advancement and the increasingly shorter turnaround time in computer-related equipment upgrades have also caused electronic waste to become a waste category not as prevalent in 1996-1997 that is of consideration in today's waste recovery and recycling industry. Ten years ago there were only a handful of computer/electronics demanufacturers in the metro areas, whereas today there are 27 such approved businesses throughout the state.

3. Convenience has become an important factor to time-pressed Americans who buy on-the-go food they can quickly consume at their desk, in their cars, or at home as they rush from one daily obligation to the other. There are substantially more PET #1 containers in the generated waste stream than a decade ago. By 2001, the Beverage Marketing Corporation was reporting that bottled water sales had tripled over the past decade and that single serve sales had grown 35% since 1993. By 2005, the carbonated soft drink market share had begun to decline due to the continued growth in bottled water, as well as sports drinks of expanding variety, bottled tea and flavored waters. Even though carbonated soft drinks experienced a declining *market* share, their sales volumes were 14% higher in 2006(10.6 billion cases) than they were in 1996(9.3 billion cases). The 2006-2007 WCS showed PET #1 plastics only increased .84% by weight and .73% by volume in the MSW waste stream since 1996-1997. This verifies the vast number of PET #1 containers that are being diverted from landfills considering the dynamic increase in the product generated.

General observations about the 2006-2007 waste composition study findings:

1. Recycling Effect on Population Groups - Recycling efforts are making a difference in Missouri. In the Large Metro group, three of the four sites have substantially less paper in their waste streams than ten years ago. Three of the four also had a noticeable increase in Plastics, although considering the plastics in the generated waste stream the numbers are supportive of increased recycling as well.

Similar to the Large Metro group, the three Small Metro communities all show decreased amounts of paper and increased amounts of plastics in their waste. Columbia's results indicated the greatest reduction in paper over the past ten years even though they had the highest percentage by volume for this year's study. The decrease since 1996-1997 coincides with the implementation of their commingled recycling system, convenience store recycling, expansion of their drop-offs to large apartment complexes and startup of a commercial recycling program over the past decade. Columbia also had a 25-year container deposit ordinance repealed in April, 2002, which one would expect to contribute to an increase in PET #1, aluminum, and glass. Columbia experienced less than 1% increases in each of these categories and even had less than average of these materials by weight compared to the overall 2006-2007 average.

In rural settings, the service area for the Pemiscot County Transfer Station has had the most improved recycling services offered in the area over the past decade with drop-offs provided in all surrounding communities whereas only one was in the area ten years ago. The waste composition for Pemiscot County reflected decreases in percentage by weight for paper and glass whereas plastics and organics and inorganics increased as a noticeable percentage of weight.

Alternately, the city of Maryville had a more aggressive recycling program in place ten years ago than they do today. The city discontinued its pay as you throw curbside program in 2001 and there are few recycling opportunities in the service area other than through the local University. This was reflected in the 2006-2007 data when compared to the 1996-1997 results in various categories. However, when compared to the 2006-2007 overall average of all sorts, Maryville was very near average and even had less Total Paper. Paper is targeted by the University for its pelletizing alternative fuel program.

Of the seven Rural population service areas, the Osage Beach site had the least amount of recycling service offered in their service area. This site had the greatest percentage by weight of all sites for aluminum cans, brown and green glass, and electronic waste. The service area for the Osage Beach Transfer Station is the Lake of the Ozarks region, which is known for vacation attractions, weekend homes, and recreational atmosphere which all coincide with the high numbers in the beverage container categories. Likewise, the Reeds Spring Transfer Facility receives waste from the Branson tourist area and they had an equally high percentage by weight of glass. Branson has a recycling program which could have kept the PET #1 and aluminum cans from experiencing the increases that Osage Beach had.

2. Seasonal Effect on Waste Stream – There appears to be no change in Missouri's MSW waste stream between fall and spring, which is a consistent observation from the 1996-1997 study.

3. Value of Recyclables in the MSW Waste Stream - Throughout this report, percentages by weight and volume have been identified from various viewpoints and groupings. A substantial amount of material in the MSW waste stream is valuable. Table 8 quantifies the substantial portions that are reasonably believed to be marketable through recycling facilities or diverted in other methods such as composting. Increased recovery, reuse, and recycling have a significant positive impact on Missouri's solid waste industry.

Table 8 - Estimated Value of Recyclables in Missouri's 2006 MSW Waste Stream

	% of MSW by Wt.	Est. Tons/Yr.	Est. Value/Ton*	Est. Marketed Value	Est. Avoided Landfill Fee**	Potential Savings/Year***
Cardboard	8.20%	220,013	\$ 82.00	\$ 18,041,066	\$ 8,917,127	\$ 26,958,192
Newsprint	5.17%	138,567				
Est. 50% Marketable as News#6		69,283	\$ 57.00	\$ 3,949,152	\$ 2,808,055	\$ 6,757,207
Est. 50% Marketable as News#8		69,283	\$ 83.50	\$ 5,785,182	\$ 2,808,055	\$ 8,593,217
Magazines (assume marketable as Mixed)	3.66%	98,249	\$ 58.50	\$ 5,845,818	\$ 3,982,034	\$ 9,827,852
High Grade Paper (assume marketable as SOP)	6.40%	171,587	\$ 137.00	\$ 23,507,379	\$ 8,954,409	\$ 30,461,789
Mixed Paper	10.20%	273,665				
Est. 70% Marketable		191,565	\$ 58.50	\$ 11,398,139	\$ 7,764,144	\$ 19,162,284
Est. 30% Compostable		82,099			\$ 3,327,490	\$ 3,327,490
TOTAL PAPER DIVERTED	33.63%	1,314,312		\$ 68,526,717	\$ 36,561,315	\$ 105,088,032
Clear Glass	2.71%	72,797	\$ 27.50	\$ 2,001,920	\$ 2,950,466	\$ 4,952,386
Brown Glass	1.77%	47,480	\$ 16.00	\$ 759,685	\$ 1,924,376	\$ 2,684,060
Green Glass	0.63%	16,848	\$ 7.50	\$ 126,359	\$ 882,843	\$ 809,202
TOTAL GLASS DIVERTED	5.11%	137,125		\$ 2,887,963	\$ 5,557,685	\$ 8,445,648
Aluminum Cans	1.59%	42,615	\$1,750.00	\$ 74,576,477	\$ 1,727,191	\$ 76,303,668
Food Cans	2.93%	78,698	\$ 194.50	\$ 15,306,828	\$ 3,189,644	\$ 18,496,471
TOTAL METALS DIVERTED	4.52%	121,313		\$ 89,883,305	\$ 4,916,835	\$ 94,800,140
PET #1	2.55%	68,292	\$ 292.00	\$ 19,941,358	\$ 2,767,888	\$ 22,709,246
HDPE #2	1.90%	50,859				
Est. 70% Natural(Milk Jugs)		35,601	\$ 800.00	\$ 21,360,721	\$ 1,442,917	\$ 22,803,638
Est. 30% Color		15,258	\$ 348.00	\$ 5,309,665	\$ 618,393	\$ 5,928,058
Plastic Film	4.82%	129,242				
Est. can use 70% in extrusion market(no mkt \$)	3.37%	90,469			\$ 3,666,721	\$ 3,666,721
Other Plastics	7.99%	214,247				
Est. can use 70% in extrusion market(no mkt \$)	5.59%	149,973			\$ 6,078,398	\$ 6,078,398
TOTAL PLASTIC DIVERTED	13.41%	359,593		\$ 46,611,744	\$ 8,495,918	\$ 55,107,663
Food Waste	17.22%	461,919			\$ 18,721,584	\$ 18,721,584
Other Organics	2.97%	79,554				
Est. 20% compostable(yard waste, plant trimmings)	0.59%	15,911			\$ 644,867	\$ 644,867
TOTAL ORGANICS DIVERTED	17.82%	477,830			\$ 19,366,451	\$ 19,366,451
TOTAL	74.49%	2,410,174		\$ 207,909,729	\$ 74,898,204	\$ 282,807,933

*Fiber market values are based on Yellow Sheet baled prices for tractor trailer loads in the Midwest/Chicago sector;
Container market values are based on Waste News Chicago Market Average Price from Mid-Range. All values are calculated averaged from sort period, September/06 through June/07.

**Average tipping fee from all sampled facilities during the 2006-2007 WCS was \$40.53. This value was applied to the tonnages to determine Avoided Landfill Fee.

***Potential Savings are savings that could be used for costs associated with processing the recyclables/compostables.

Appendix 1

Columbia Landfill

APPENDIX 1 - COLUMBIA SANITARY LANDFILL

The Columbia Sanitary Landfill is owned and operated by the city of Columbia Public Works Department. Columbia is centrally located in Missouri along I-70 between Kansas City and St. Louis. It is the county seat of Boone County and is the largest service center in mid-Missouri. Columbia's sanitary landfill is one of three landfills in Solid Waste Management District H.

Demographics:

	<u>Columbia</u>	<u>Boone County</u>
Population	84,780	135,454
Number of Households	35,963	53,106
Average Household Size	2.26	2.38
Median Household Income	\$33,729	\$37,485

Solid Waste Collection

The city of Columbia collects all residential trash within the city limits. They also provide commercial and industrial collection within the city limits, as do several private haulers. Various private and municipal haulers service residential and commercial customers outside the Columbia city limits and in surrounding mid-Missouri towns.

Solid Waste Disposal

The Columbia Sanitary Landfill accepts waste from the eight-county solid waste district area. The site is in the northeast corner of the city limits, off of Route B. The current tipping fee at the landfill is \$32.50 per ton, and the facility received 197,272 tons of waste during calendar year 2006. This quantity was escalated due to a destructive spring storm. Projected tonnage for 2007 is 175,000, which is in line with normal growth in recent years.

Waste Reduction, Recycling, and Recovery Programs

Columbia has had an active recycling program since the early 1980's and a waste minimization program since 1990. The city's recycling program has been a dual stream commingled system since 1998 for both curbside and drop-off collection. The city fee for residential solid waste services includes refuse, recycling, and yard waste collection and disposal. Some private haulers in the area offer residential recycling collection for incremental fees.

Commercial recycling services are offered by some private haulers and recycling companies as well as the city. The city owns and operates a Material Recovery Facility that is open for processing recyclables from both city and private haulers. Over 8,100 tons were processed at the MRF in fiscal year 2006.

The city also operates a household hazardous waste(hhw) facility for citizen drop-off from April-November, a 15-acre compost facility where mulch and compost are processed, and two yard waste drop-off sites. Over 120,000 pounds of hhw were received in 2006. The city sells compost to the public and gives mulch away several times per year. A landfill gas-to-energy facility is being constructed by the city's Water & Light department to utilize the landfill's methane.

Columbia Sanitary Landfill Sort Results

Sampling information and composition results are listed in Tables 1.1 through 1.6 and shown in Charts 1.1 through 1.4. There were no significant items noted by the sorters during the sampling event. The number of electronic items in the sampled waste was low, though the weight was more than average due to a t.v. and a printer. The printer was the only computer-related item in the sample. This could be due to the existence of a local electronics recycling organization, Mid-Missouri Recycling.

The significant differences in the combined 2006-2007 waste composition for the Columbia sort when percentage by weight is compared to the 1996-1997 data include the Paper category (10.2% less), Plastics (6.1% more) and Organics (4.9% more). As previously mentioned, Columbia has developed their recycling program extensively since 1996-1997, including construction of the Material Recovery Facility and expansion of their drop-off program which could explain the reduction in Paper materials experienced in the MSW.

City residents also repealed a container deposit ordinance in 2002 which would indicate more container materials could be in the city's waste stream. Increases in aluminum, glass, and plastic were all found in the waste, but each at less than 1 percent by weight.

Somewhat consistent with the differences in 2006-2007 results compared to 1996-1997, is the difference in Columbia data to the overall 2006-2007 WCS sort. The results showed Paper (2.25% less), Plastics (1.38% more) and Organics (1.5% more) with trends similar to the contrast with 1996-1997, as well as 1.49% less Metal by weight. Comparing categories and subcategories to all other sampled sites in 2006-2007, Columbia had the greatest percentage by weight of Plastic Film(6.78) and the greatest percentage by volume of Cardboard(15.34), Plastic Film(14.37), and Total Plastic(34.62). The least percentage by weight was observed at Columbia in High Grade Paper(4.75), Brown Glass(.89), and Food Cans(1.76) while the least percentage by volume was observed in Newsprint(2.76), High Grade Paper(4.17), Brown Glass(.67), Total Glass(2.38), Food Cans(1.49), and Total Metals(5.06).

Table 1.1 - Sample Summary - Columbia Sanitary Landfill

Fall 2006		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	264	1.9	90%	10%	City of Columbia	
2	247	2.4	90%	10%	City of Columbia	
3	165	1.6	100%	0%	Boone County	
4	215	2.1	100%	0%	City of Columbia	
5	240	1.8	50%	50%	Boone County	
6	161	1.5	100%	0%	City of Columbia	
7	180	2.1	90%	10%	Boone County	
8	265	2.4	100%	0%	City of Columbia	
Total Fall	1737	15.6				
Average	217	1.9	90%	10%		
Spring 2007		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	289	2.4	75%	25%	Boone County	
2	245	2.0	80%	20%	City of Columbia	
3	292	2.2	100%	0%	City of Columbia	
4	262	2.1	100%	0%	City of Columbia	
5	242	2.0	100%	0%	City of Columbia	
6	311	2.1	100%	0%	Boone County	
7	273	2.4	100%	0%	City of Columbia	
8	374	2.9	100%	0%	City of Columbia	
Total Spring	2288	18.0				
Average	286	2.3	94%	6%		
Site Total	4025	33.6				
Average	252	2.1	92%	8%		
Estimated Waste (lbs.) Accepted at Site During Sample Periods						3,442,623

Table 1.2 - City of Columbia Landfill Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	148	18.5	8.5%	2.325	0.291	14.9%
Newsprint	82	10.3	4.7%	0.6	0.075	3.9%
Magazines	69	8.6	4.0%	0.325	0.041	2.1%
High Grade Paper	99	12.4	5.7%	0.825	0.103	5.3%
Mixed Paper	190	23.8	10.9%	1.9	0.238	12.2%
PAPER TOTALS	588	73.5	33.9%	5.975	0.747	38.4%
Clear Glass	51	6.4	2.9%	0.175	0.022	1.1%
Brown Glass	17	2.1	1.0%	0.125	0.016	0.8%
Green Glass	10	1.3	0.6%	0.1	0.013	0.6%
Other Glass	3	0.4	0.2%	0.025	0.003	0.2%
GLASS TOTALS	81	10.1	4.7%	0.425	0.053	2.7%
Aluminum Cans	30	3.8	1.7%	0.425	0.053	2.7%
Other Aluminum	4	0.5	0.2%	0.075	0.009	0.5%
Non Ferrous	1	0.1	0.1%	0.025	0.003	0.2%
Food Cans	26	3.3	1.5%	0.225	0.028	1.4%
Ferrous	31	3.9	1.8%	0.175	0.022	1.1%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	92	11.5	5.3%	0.925	0.116	5.9%
PET #1	32	4.0	1.8%	0.525	0.066	3.4%
HDPE #2	22	2.8	1.3%	0.5	0.063	3.2%
Plastic Film	87	10.9	5.0%	1.4	0.175	9.0%
Other Plastic	193	24.1	11.1%	2.5	0.313	16.1%
PLASTIC TOTALS	334	41.8	19.2%	4.925	0.616	31.6%
Food Waste	243	30.4	14.0%	0.925	0.116	5.9%
Wood Waste	20	2.5	1.2%	0.1	0.013	0.6%
Textiles	69	8.6	4.0%	0.6	0.075	3.9%
Diapers	90	11.3	5.2%	0.475	0.059	3.0%
Other Organics	69	8.6	4.0%	0.45	0.056	2.9%
ORGANIC TOTALS	491	61.4	28.3%	2.55	0.319	16.4%
Fines	16	2.0	0.9%	0.15	0.019	1.0%
Other Inorganics	123	15.4	7.1%	0.55	0.069	3.5%
INORGANIC TOTALS	139	17.4	8.0%	0.7	0.088	4.5%
HHW	9	1.1	0.5%	0.05	0.006	0.3%
Electronic Waste	3	0.4	0.2%	0.025	0.003	0.2%
SPECIAL WASTE TOTALS	12	1.5	0.7%	0.075	0.009	0.5%
TOTAL	1737	217.1	100%	15.575	1.947	100%

Table 1.3 - City of Columbia Landfill Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	201	25.1	8.8%	2.825	0.353	15.7%
Newsprint	77	9.6	3.4%	0.325	0.041	1.8%
Magazines	50	6.3	2.2%	0.175	0.022	1.0%
High Grade Paper	92	11.5	4.0%	0.575	0.072	3.2%
Mixed Paper	255	31.9	11.1%	2.35	0.294	13.1%
PAPER TOTALS	675	84.4	29.5%	6.25	0.781	34.7%
Clear Glass	64	8.0	2.8%	0.175	0.022	1.0%
Brown Glass	19	2.4	0.8%	0.1	0.013	0.6%
Green Glass	9	1.1	0.4%	0.05	0.006	0.3%
Other Glass	7	0.9	0.3%	0.05	0.006	0.3%
GLASS TOTALS	99	12.4	4.3%	0.375	0.047	2.1%
Aluminum Cans	25	3.1	1.1%	0.35	0.044	1.9%
Other Aluminum	6	0.8	0.3%	0.05	0.006	0.3%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	45	5.6	2.0%	0.275	0.034	1.5%
Ferrous	17	2.1	0.7%	0.075	0.009	0.4%
Oil filters (one)	2	0.3	0.1%	0.025	0.003	0.1%
METAL TOTALS	95	11.9	4.2%	0.775	0.097	4.3%
PET #1	47	5.9	2.1%	0.75	0.094	4.2%
HDPE #2	34	4.3	1.5%	0.6	0.075	3.3%
Plastic Film	186	23.3	8.1%	3.425	0.428	19.0%
Other Plastic	149	18.6	6.5%	1.925	0.241	10.7%
PLASTIC TOTALS	416	52.0	18.2%	6.7	0.838	37.2%
Food Waste	524	65.5	22.9%	1.8	0.225	10.0%
Wood Waste	21	2.6	0.9%	0.1	0.013	0.6%
Textiles	135	16.9	5.9%	0.725	0.091	4.0%
Diapers	98	12.3	4.3%	0.35	0.044	1.9%
Other Organics	63	7.9	2.8%	0.375	0.047	2.1%
ORGANIC TOTALS	841	105.1	36.8%	3.35	0.419	18.6%
Fines	20	2.5	0.9%	0.075	0.009	0.4%
Other Inorganics	50	6.3	2.2%	0.225	0.028	1.3%
INORGANIC TOTALS	70	8.8	3.1%	0.3	0.038	1.7%
HHW	13	1.6	0.6%	0.05	0.006	0.3%
Electronic Waste	79	9.9	3.5%	0.2	0.025	1.1%
SPECIAL WASTE TOTALS	92	11.5	4.0%	0.25	0.031	1.4%
TOTAL	2288	286.0	100%	18	2.250	100%

Chart 1.1 - Columbia Results Fall 2006 vs. Spring 2007
Percentage by Weight

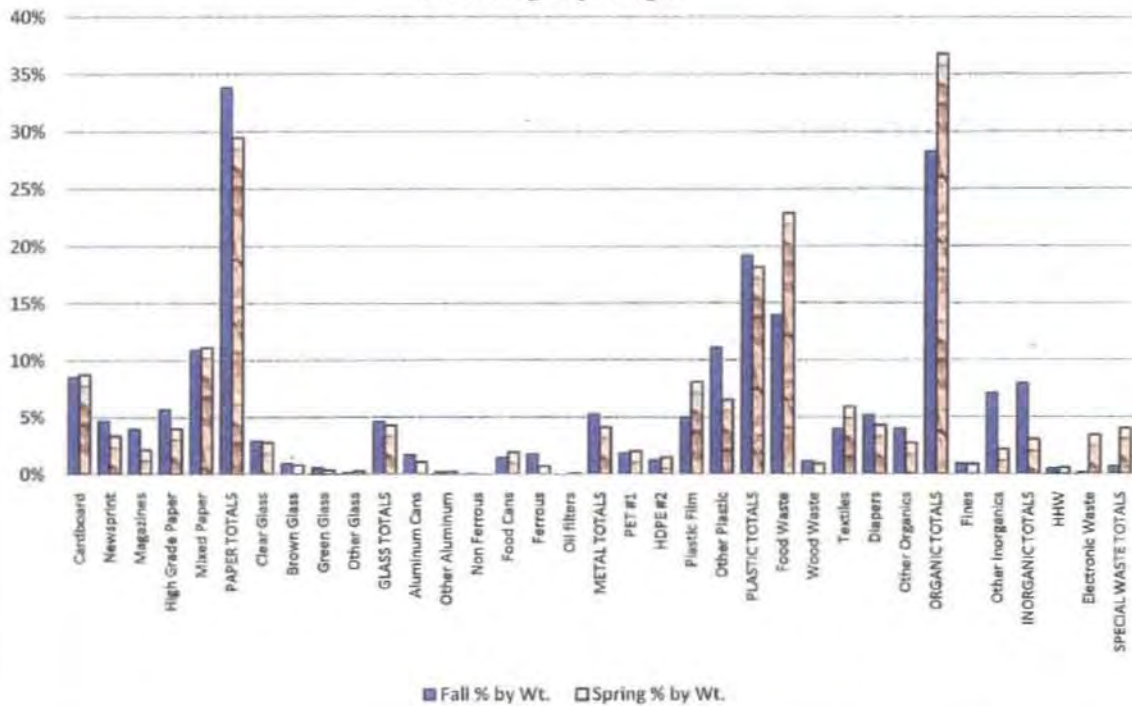
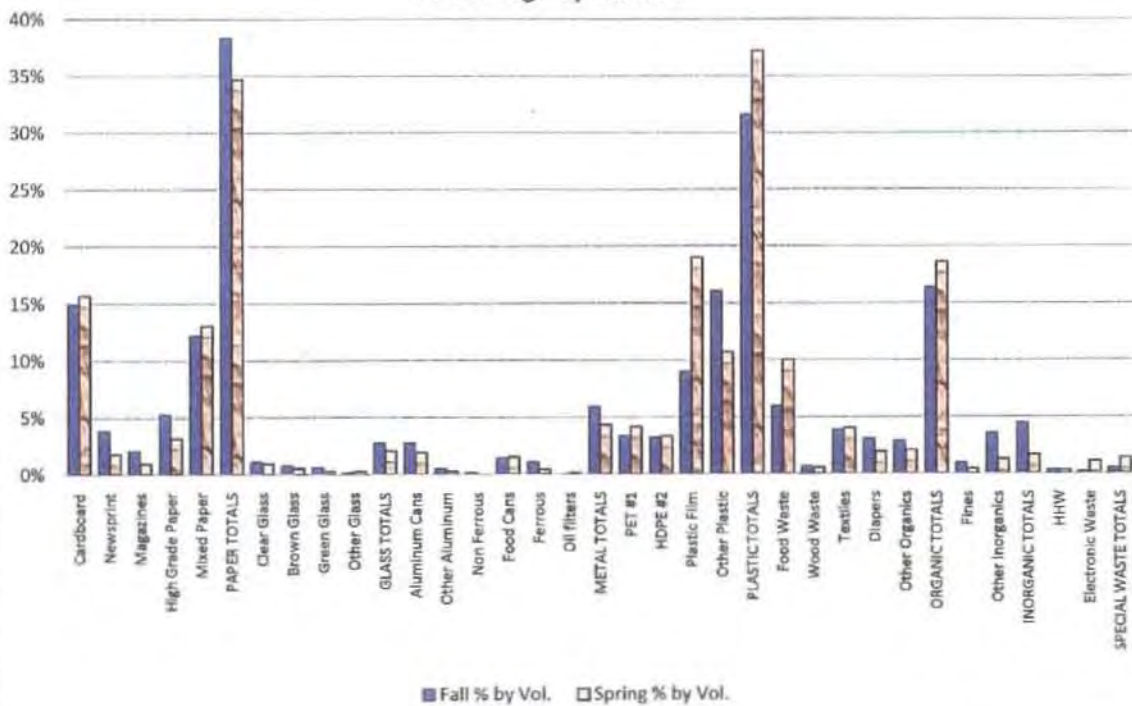


Chart 1.2 - Columbia Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 1.4 - Waste Composition Summary and Comparison
City of Columbia Landfill 1996-1997 to 2006-2007**

	Fall Sort - 10/8-10/9/06				Spring Sort - 6/14-6/15/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	148	8.5%	2.325	14.9%	201	8.8%	2.83	15.7%	349	8.7%	5.15	15%	17.00%	8.67%	-8.33%
Newsprint	82	4.7%	0.600	3.9%	77	3.4%	0.33	1.8%	159	4.0%	0.93	3%	7.10%	3.95%	-3.15%
Magazines	69	4.0%	0.325	2.1%	50	2.2%	0.18	1.0%	119	3.0%	0.50	1%	4.70%	2.96%	-1.74%
High Grade Paper	99	5.7%	0.825	5.3%	92	4.0%	0.58	3.2%	191	4.7%	1.40	4%	2.00%	4.75%	2.75%
Mixed Paper	190	10.9%	1.900	12.2%	255	11.1%	2.35	13.1%	445	11.1%	4.25	13%	10.80%	11.06%	0.26%
TOTAL PAPER	588	33.9%	5.975	38.4%	675	29.5%	6.25	34.7%	1,263	31.4%	12.23	36%	41.60%	31.38%	-10.22%
Clear Glass	51	2.9%	0.175	1.1%	64	2.8%	0.18	1.0%	115	2.9%	0.35	1%	2.30%	2.86%	0.56%
Brown Glass	17	1.0%	0.125	0.8%	19	0.8%	0.10	0.6%	36	0.9%	0.23	1%	0.70%	0.89%	0.19%
Green Glass	10	0.6%	0.100	0.6%	9	0.4%	0.05	0.3%	19	0.5%	0.15	0%	0.30%	0.47%	0.17%
Other Glass	3	0.2%	0.025	0.2%	7	0.3%	0.05	0.3%	10	0.2%	0.08	0%	0.40%	0.25%	-0.15%
TOTAL GLASS	81	4.7%	0.425	2.7%	99	4.3%	0.38	2.1%	180	4.5%	0.80	2%	3.70%	4.47%	0.77%
Aluminum Cans	30	1.7%	0.425	2.7%	25	1.1%	0.35	1.9%	55	1.4%	0.78	2%	0.50%	1.37%	0.87%
Other Aluminum	4	0.2%	0.075	0.5%	6	0.3%	0.05	0.3%	10	0.2%	0.13	0%	0.40%	0.25%	-0.15%
Non Ferrous	1	0.1%	0.025	0.2%	-	0.0%	-	0.0%	1	0.0%	0.03	0%	0.50%	0.02%	-0.48%
Food Cans	26	1.5%	0.225	1.4%	45	2.0%	0.28	1.5%	71	1.8%	0.50	1%	2.10%	1.76%	-0.34%
Ferrous	31	1.8%	0.175	1.1%	17	0.7%	0.08	0.4%	48	1.2%	0.25	1%	1.80%	1.19%	-0.61%
Oil filters	0	0.0%	-	0.0%	2	0.1%	0.03	0.1%	2	0.0%	0.03	0%	0.00%	0.05%	0.05%
TOTAL METALS	92	5.3%	0.925	5.9%	95	4.2%	0.78	4.3%	187	4.6%	1.70	5%	5.30%	4.65%	-0.65%
PET #1	32	1.8%	0.525	3.4%	47	2.1%	0.75	4.2%	79	2.0%	1.28	4%	1.00%	1.96%	0.96%
HDPE #2	22	1.3%	0.500	3.2%	34	1.5%	0.60	3.3%	56	1.4%	1.10	3%	2.20%	1.39%	-0.81%
Plastic Film	87	5.0%	1.400	9.0%	186	8.1%	3.43	19.0%	273	6.8%	4.83	14%	N/A	6.78%	N/A
Other Plastic	193	11.1%	2.500	16.1%	149	6.5%	1.93	10.7%	342	8.5%	4.43	13%	9.30%	8.50%	-0.80%
TOTAL PLASTIC	334	19.2%	4.925	31.6%	416	18.2%	6.70	37.2%	750	18.6%	11.63	35%	12.50%	18.63%	6.13%
Food Waste	243	14.0%	0.925	5.9%	524	22.9%	1.80	10.0%	767	19.1%	2.73	8%	13.10%	19.06%	5.96%
Wood Waste	20	1.2%	0.100	0.6%	21	0.9%	0.10	0.6%	41	1.0%	0.20	1%	3.70%	1.02%	-2.68%
Textiles	69	4.0%	0.600	3.9%	135	5.9%	0.73	4.0%	204	5.1%	1.33	4%	5.40%	5.07%	-0.33%
Diapers	90	5.2%	0.475	3.0%	98	4.3%	0.35	1.9%	188	4.7%	0.83	2%	3.30%	4.67%	1.37%
Other Organics	69	4.0%	0.450	2.9%	63	2.8%	0.38	2.1%	132	3.3%	0.83	2%	2.70%	3.28%	0.58%
TOTAL ORGANICS	491	28.3%	2.550	16.4%	841	36.8%	3.35	18.6%	1,332	33.1%	5.90	18%	28.20%	33.09%	4.89%
Fines	16	0.9%	0.150	1.0%	20	0.9%	0.08	0.4%	36	0.9%	0.23	1%	1.10%	0.89%	-0.21%
Other Inorganics	123	7.1%	0.550	3.5%	50	2.2%	0.23	1.3%	173	4.3%	0.78	2%	7.60%	4.30%	-3.30%
TOTAL INORGANICS	139	8.0%	0.700	4.5%	70	3.1%	0.30	1.7%	209	5.2%	1.00	3%	8.70%	5.19%	-3.51%
HHW	9	0.5%	0.050	0.3%	13	0.6%	0.05	0.3%	22	0.5%	0.10	0%	n/a	0.55%	0.55%
Electronic Waste	3	0.2%	0.025	0.2%	79	3.5%	0.20	1.1%	82	2.0%	0.23	1%	n/a	2.04%	2.04%
TOTAL SPECIAL WASTE	12	0.7%	0.075	0.5%	92	4.0%	0.25	1.4%	104	2.6%	0.33	1%		2.58%	2.58%
TOTAL COMPOSITION	1,737	100%	15.6	100%	2,288	100%	18.00	100%	4,025	100%	33.6	100%	100%	100%	0%

**Table 1.5 - Waste Composition Summary and Comparison City of Columbia Landfill
Site to 2006-2007 Overall Average**

	Fall Sort - 10/8-10/9/06				Spring Sort - 6/14-6/15/07				Total 2006-2007 Results for Site				Avg. All Sites	Columbia	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	148	8.5%	2.325	14.9%	201	8.8%	2.83	15.7%	349	8.7%	5.15	15.3%	8.20%	8.67%	0.47%
Newsprint	82	4.7%	0.600	3.9%	77	3.4%	0.33	1.8%	159	4.0%	0.93	2.8%	5.17%	3.95%	-1.22%
Magazines	69	4.0%	0.325	2.1%	50	2.2%	0.18	1.0%	119	3.0%	0.50	1.5%	3.68%	2.96%	-0.71%
High Grade Paper	99	5.7%	0.825	5.3%	92	4.0%	0.58	3.2%	191	4.7%	1.40	4.2%	6.40%	4.75%	-1.65%
Mixed Paper	190	10.9%	1.900	12.2%	255	11.1%	2.35	13.1%	445	11.1%	4.25	12.7%	10.20%	11.06%	0.85%
TOTAL PAPER	588	33.9%	5.975	38.4%	675	29.5%	6.25	34.7%	1,263	31.4%	12.23	36.4%	33.63%	31.38%	-2.25%
Clear Glass	51	2.9%	0.175	1.1%	64	2.8%	0.18	1.0%	115	2.9%	0.35	1.0%	2.71%	2.86%	0.14%
Brown Glass	17	1.0%	0.125	0.8%	19	0.8%	0.10	0.6%	36	0.9%	0.23	0.7%	1.77%	0.89%	-0.88%
Green Glass	10	0.6%	0.100	0.6%	9	0.4%	0.05	0.3%	19	0.5%	0.15	0.4%	0.63%	0.47%	-0.16%
Other Glass	3	0.2%	0.025	0.2%	7	0.3%	0.05	0.3%	10	0.2%	0.08	0.2%	0.32%	0.25%	-0.08%
TOTAL GLASS	81	4.7%	0.425	2.7%	99	4.3%	0.38	2.1%	180	4.5%	0.80	2.4%	5.44%	4.47%	-0.96%
Aluminum Cans	30	1.7%	0.425	2.7%	25	1.1%	0.35	1.9%	55	1.4%	0.78	2.3%	1.59%	1.37%	-0.22%
Other Aluminum	4	0.2%	0.075	0.5%	6	0.3%	0.05	0.3%	10	0.2%	0.13	0.4%	0.34%	0.25%	-0.09%
Non Ferrous	1	0.1%	0.025	0.2%	-	0.0%	-	0.0%	1	0.0%	0.03	0.1%	0.23%	0.02%	-0.21%
Food Cans	26	1.5%	0.225	1.4%	45	2.0%	0.28	1.5%	71	1.8%	0.50	1.5%	2.93%	1.76%	-1.17%
Ferrous	31	1.8%	0.175	1.1%	17	0.7%	0.08	0.4%	48	1.2%	0.25	0.7%	0.87%	1.19%	0.32%
Oil filters	0	0.0%	-	0.0%	2	0.1%	0.03	0.1%	2	0.0%	0.03	0.1%	0.08%	0.05%	-0.03%
TOTAL METALS	92	5.3%	0.925	5.9%	95	4.2%	0.78	4.3%	187	4.6%	1.70	5.1%	6.04%	4.65%	-1.39%
PET #1	32	1.8%	0.525	3.4%	47	2.1%	0.75	4.2%	79	2.0%	1.28	3.8%	2.55%	1.96%	-0.58%
HDPE #2	22	1.3%	0.500	3.2%	34	1.5%	0.60	3.3%	56	1.4%	1.10	3.3%	1.90%	1.39%	-0.50%
Plastic Film	87	5.0%	1.400	9.0%	186	8.1%	3.43	19.0%	273	6.8%	4.83	14.4%	4.82%	6.78%	1.96%
Other Plastic	193	11.1%	2.500	16.1%	149	6.5%	1.93	10.7%	342	8.5%	4.43	13.2%	7.99%	8.50%	0.51%
TOTAL PLASTIC	334	19.2%	4.925	31.6%	416	18.2%	6.70	37.2%	750	18.6%	11.63	34.6%	17.25%	18.63%	1.38%
Food Waste	243	14.0%	0.925	5.9%	524	22.9%	1.80	10.0%	767	19.1%	2.73	8.1%	17.22%	19.06%	1.83%
Wood Waste	20	1.2%	0.100	0.6%	21	0.9%	0.10	0.6%	41	1.0%	0.20	0.6%	1.19%	1.02%	-0.17%
Textiles	69	4.0%	0.600	3.9%	135	5.9%	0.73	4.0%	204	5.1%	1.33	3.9%	4.73%	5.07%	0.34%
Diapers	90	5.2%	0.475	3.0%	98	4.3%	0.35	1.9%	188	4.7%	0.83	2.5%	5.48%	4.67%	-0.81%
Other Organics	69	4.0%	0.450	2.9%	63	2.8%	0.38	2.1%	132	3.3%	0.83	2.5%	2.97%	3.28%	0.31%
TOTAL ORGANICS	491	28.3%	2.550	16.4%	841	36.8%	3.35	18.6%	1,332	33.1%	5.90	17.6%	31.59%	33.09%	1.50%
Fines	16	0.9%	0.150	1.0%	20	0.9%	0.08	0.4%	36	0.9%	0.23	0.7%	0.93%	0.89%	-0.04%
Other Inorganics	123	7.1%	0.550	3.5%	50	2.2%	0.23	1.3%	173	4.3%	0.78	2.3%	3.21%	4.30%	1.09%
TOTAL INORGANICS	139	8.0%	0.700	4.5%	70	3.1%	0.30	1.7%	209	5.2%	1.00	3.0%	4.14%	5.19%	1.05%
HHW	9	0.5%	0.050	0.3%	13	0.6%	0.05	0.3%	22	0.5%	0.10	0.3%	0.92%	0.55%	-0.37%
Electronic Waste	3	0.2%	0.025	0.2%	79	3.5%	0.20	1.1%	82	2.0%	0.23	0.7%	0.99%	2.04%	1.05%
TOTAL SPECIAL WASTE	12	0.7%	0.075	0.5%	92	4.0%	0.25	1.4%	104	2.6%	0.33	1.0%	1.91%	2.58%	0.68%
TOTAL COMPOSITION	1,737	100%	15.6	100%	2,288	100%	18.00	100%	4,025	100%	33.6	100%	100%	100%	0%

Chart 1.3 - Columbia Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

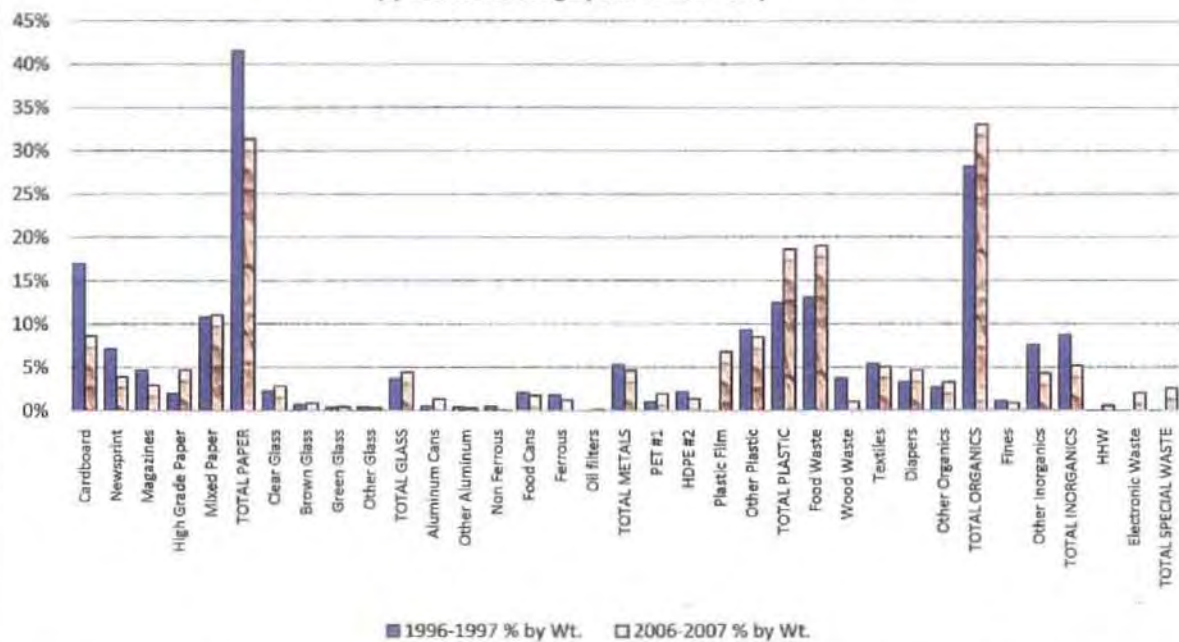


Chart 1.4- Columbia Results 2006-2007 vs. 2006-2007 Sort Average

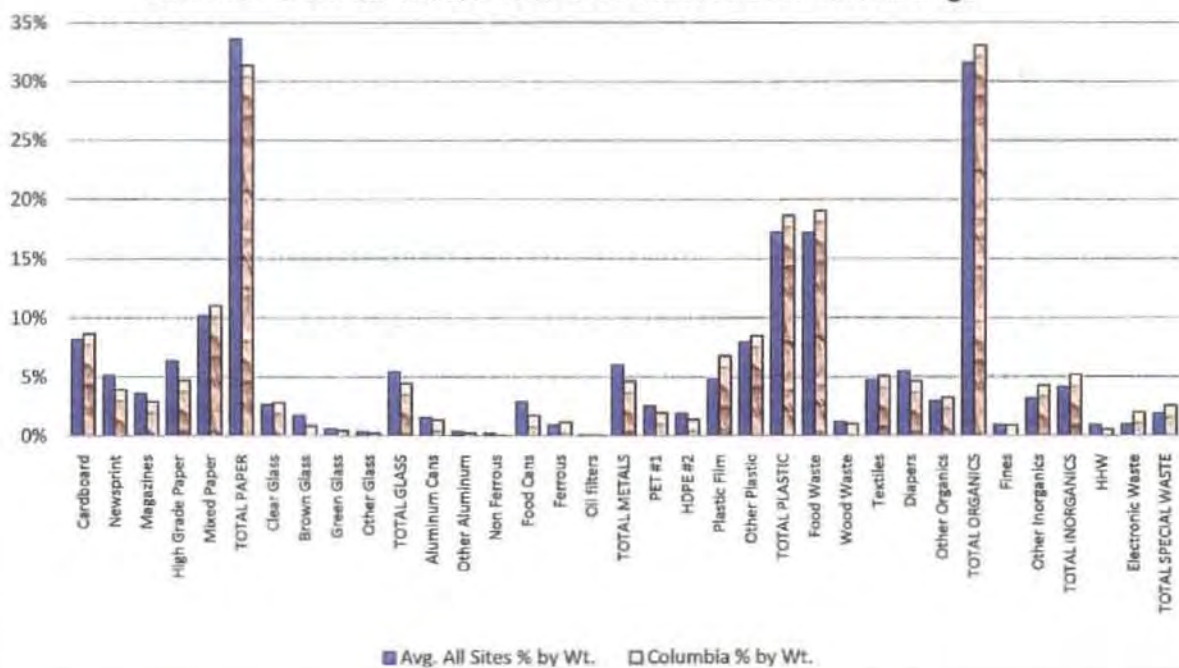


Table 1.6 - Special Waste Sorted at Columbia Sanitary Landfill

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)		
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	3	4
TV, VCR, DVD player, Game Stations, etc.		1
Remote Control or Game Controller		several
Electronic Toy or Game	1	
Computer Hard Drive		
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		1
Toner Cartridge		
Telephone/Answering Machine		
Cell Phones, Chargers	1	several of both
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes		few
Paint, Thinner, etc.		several
Automotive Fluids (oil, fuel, starting fluid, etc.)		
Oil Filters		
Household Cleaners	2	1
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellant Spray, Powder, Poison, etc.		few
Over The Counter & Prescription Medicine	2	several
Beauty & Hygiene Products		few
Disposable Razors	1	1
Alkaline Batteries	51	38
Lithium & Other Batteries		1
Smoke Alarm		
Other:	lamp oil, fireworks	cig. Lighter

Weight of Batteries Reported by RBRC

58.9 oz.

68.5

Appendix 2

Courtney Ridge Landfill

APPENDIX 2 - COURTNEY RIDGE LANDFILL

Courtney Ridge Landfill is owned and operated by Allied Waste Incorporated. It is located along Highway 291 north of I-70 in Sugar Creek, part of the northeastern Kansas City metropolitan area. Courtney Ridge is located in northern Jackson County near neighboring Clay County and is part of Solid Waste Management District E.

Demographics:

	<u>Jackson County</u>	<u>Clay County</u>
Population	654,880	184,006
Number of Households	266,501	72,613
Average Household Size	2.42	2.5
Median Household Income	\$39,277	\$48,347

Solid Waste Collection

Various private and city haulers from the Kansas City metropolitan area service customers in the area of the Courtney Ridge Landfill.

Solid Waste Disposal

Courtney Ridge Landfill is owned and operated by Allied Waste. Tipping fees are \$45 per ton and 299,505 tons were received at this landfill during calendar year 2006. The Courtney Ridge Landfill operates in the city of Sugar Creek.

Waste Reduction, Recycling, and Recovery Programs

The Courtney Ridge Landfill provides recycling services to businesses and residents throughout the northern Kansas City metro area, specifically, southern Platte, Clay, and Ray counties and northern Jackson County. The landfill offers yard waste drop off and aluminum can recycling. All services are open to any resident or business who wants to use them regardless of city or state of origin.

The city of Sugar Creek provides municipal solid waste services for its residents. Residents pay an annual fee which covers the following recycling services: curbside recycling, curbside yard waste recycling, HHW collection and bulky item pickup. The HHW collection event is the only service open to residents outside of Sugar Creek. Commercial recycling services are offered by many private haulers and recycling companies throughout the Sugar Creek and Kansas City metropolitan area.

Courtney Ridge Landfill Sort Results

Sampling information and composition results are listed in Tables 2.1 through 2.6 and exhibited in Charts 2.1 through 2.4. Yard waste/leaves and sheetrock were noted in multiple loads during the spring sort. When comparing the categorical results to the 1996-1997 WCS, both Papers and Plastics had measurable differences, with Papers comprising 7.2% less of the weight and Plastics comprising 4.3% more of the waste than in the previous study.

When comparing Courtney Ridge results to the overall 2006-2007 study, the greatest variance was in the Organics category at 1.3% less than the average which is not substantial. Courtney Ridge had the highest percentage by weight in the Diapers subcategory(7.31) when compared to the other 2006-2007 sampled sites, as well as the highest percent by volume of High Grade Paper(8.4). The lowest percentage by weight was observed at Courtney Ridge in the categories and subcategories of Mixed Paper(8.64), Other Plastic(6.97), and Food Waste(13.15), as well as the lowest percentage by volume in Mixed Paper(10.6), Other Glass(.14), Food Waste(6.61), and Total Inorganics(2.06).

Table 2.1 - Sample Summary - Courtney Ridge Sanitary Landfill

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	242	2.0	70%	30%	North Kansas City
2	206	2.3	70%	30%	Independence
3	231	2.5	80%	20%	Independence
4	246	2.1	80%	20%	Gladstone
5	245	2.3	80%	20%	Independence
6	240	2.5	90%	10%	West Kansas City
7	256	2.5	80%	20%	East Kansas City
8	242	2.3	90%	10%	North Kansas City
Total Fall	1908	18.4			
Average	239	2.3	80%	20%	

Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	300	2.6	90%	10%	Independence
2	225	2.1	100%	0%	North Kansas City
3	257	2.3	90%	10%	Jackson County
4	352	2.5	100%	0%	Independence
5	235	1.7	90%	10%	Kansas City
6	197	1.6	100%	0%	Independence
7	283	2.6	100%	0%	Liberty
8	318	2.6	100%	0%	Independence
Total Spring	2167	17.9			
Average	271	2.2	96%	4%	

Site Total	4075	36.3			
Average	255	2.3	88%	12%	

Estimated Waste (lbs.) Accepted at Site During Sample Periods					5,891,902
--	--	--	--	--	------------------

Table 2.2 - Courtney Ridge Landfill Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	147	18.4	7.7%	2.175	0.272	11.8%
Newsprint	111	13.9	5.8%	0.6	0.075	3.3%
Magazines	59	7.4	3.1%	0.275	0.034	1.5%
High Grade Paper	133	16.6	7.0%	1.8	0.225	9.8%
Mixed Paper	170	21.3	8.9%	1.95	0.244	10.6%
PAPER TOTALS	620	77.5	32.5%	6.8	0.850	37.0%
Clear Glass	40	5.0	2.1%	0.2	0.025	1.1%
Brown Glass	37	4.6	1.9%	0.225	0.028	1.2%
Green Glass	20	2.5	1.0%	0.2	0.025	1.1%
Other Glass	2	0.3	0.1%	0.025	0.003	0.1%
GLASS TOTALS	99	12.4	5.2%	0.65	0.081	3.5%
Aluminum Cans	36	4.5	1.9%	0.45	0.056	2.4%
Other Aluminum	12	1.5	0.6%	0.15	0.019	0.8%
Non Ferrous	4	0.5	0.2%	0.05	0.006	0.3%
Food Cans	73	9.1	3.8%	0.575	0.072	3.1%
Ferrous	34	4.3	1.8%	0.2	0.025	1.1%
Oil filters (three)	6	0.8	0.3%	0.075	0.009	0.4%
METAL TOTALS	165	20.6	8.6%	1.5	0.188	8.2%
PET #1	45	5.6	2.4%	0.7	0.088	3.8%
HDPE #2	30	3.8	1.6%	0.425	0.053	2.3%
Plastic Film	112	14.0	5.9%	2.175	0.272	11.8%
Other Plastic	143	17.9	7.5%	2.2	0.275	12.0%
PLASTIC TOTALS	330	41.3	17.3%	5.5	0.688	29.9%
Food Waste	224	28.0	11.7%	1.2	0.150	6.5%
Wood Waste	15	1.9	0.8%	0.1	0.013	0.5%
Textiles	79	9.9	4.1%	0.525	0.066	2.9%
Diapers	193	24.1	10.1%	1.025	0.128	5.6%
Other Organics	69	8.6	3.6%	0.35	0.044	1.9%
ORGANIC TOTALS	580	72.5	30.4%	3.2	0.400	17.4%
Fines	21	2.6	1.1%	0.2	0.025	1.1%
Other Inorganics	34	4.3	1.8%	0.2	0.025	1.1%
INORGANIC TOTALS	55	6.9	2.9%	0.4	0.050	2.2%
HHW	31	3.9	1.6%	0.2	0.025	1.1%
Electronic Waste	28	3.5	1.5%	0.15	0.019	0.8%
SPECIAL WASTE TOTALS	59	7.4	3.1%	0.35	0.044	1.9%
TOTAL	1908	238.5	100%	18.40	2.300	100%

Table 2.3 - Courtney Ridge Landfill Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	214	26.8	9.9%	3.125	0.391	17.4%
Newsprint	117	14.6	5.4%	0.55	0.069	3.1%
Magazines	66	8.3	3.0%	0.25	0.031	1.4%
High Grade Paper	193	24.1	8.9%	1.25	0.156	7.0%
Mixed Paper	182	22.8	8.4%	1.9	0.238	10.6%
PAPER TOTALS	772	96.5	35.6%	7.075	0.884	39.5%
Clear Glass	80	10.0	3.7%	0.25	0.031	1.4%
Brown Glass	50	6.3	2.3%	0.2	0.025	1.1%
Green Glass	17	2.1	0.8%	0.125	0.016	0.7%
Other Glass	4	0.5	0.2%	0.025	0.003	0.1%
GLASS TOTALS	151	18.9	7.0%	0.6	0.075	3.3%
Aluminum Cans	37	4.6	1.7%	0.525	0.066	2.9%
Other Aluminum	6	0.8	0.3%	0.05	0.006	0.3%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	69	8.6	3.2%	0.375	0.047	2.1%
Ferrous	7	0.9	0.3%	0.05	0.006	0.3%
Oil filters	2	0.3	0.1%	0.025	0.003	0.1%
METAL TOTALS	121	15.1	5.6%	1.025	0.128	5.7%
PET #1	66	8.3	3.0%	1.125	0.141	6.3%
HDPE #2	52	6.5	2.4%	0.95	0.119	5.3%
Plastic Film	97	12.1	4.5%	1.95	0.244	10.9%
Other Plastic	141	17.6	6.5%	1.9	0.238	10.6%
PLASTIC TOTALS	356	44.5	16.4%	5.925	0.741	33.1%
Food Waste	312	39.0	14.4%	1.2	0.150	6.7%
Wood Waste	15	1.9	0.7%	0.075	0.009	0.4%
Textiles	101	12.6	4.7%	0.525	0.066	2.9%
Diapers	105	13.1	4.8%	0.325	0.041	1.8%
Other Organics	122	15.3	5.6%	0.7	0.088	3.9%
ORGANIC TOTALS	655	81.9	30.2%	2.825	0.353	15.8%
Fines	6	0.8	0.3%	0.025	0.003	0.1%
Other Inorganics	81	10.1	3.7%	0.325	0.041	1.8%
INORGANIC TOTALS	87	10.9	4.0%	0.35	0.044	2.0%
HHW	20	2.5	0.9%	0.1	0.013	0.6%
Electronic Waste	5	0.6	0.2%	0.025	0.003	0.1%
SPECIAL WASTE TOTALS	25	3.1	1.2%	0.125	0.016	0.7%
TOTAL	2167	270.9	100%	17.925	2.241	100%

Chart 2.1 - Courtney Ridge Results Fall 2006 vs. Spring 2007
Percentage by Weight

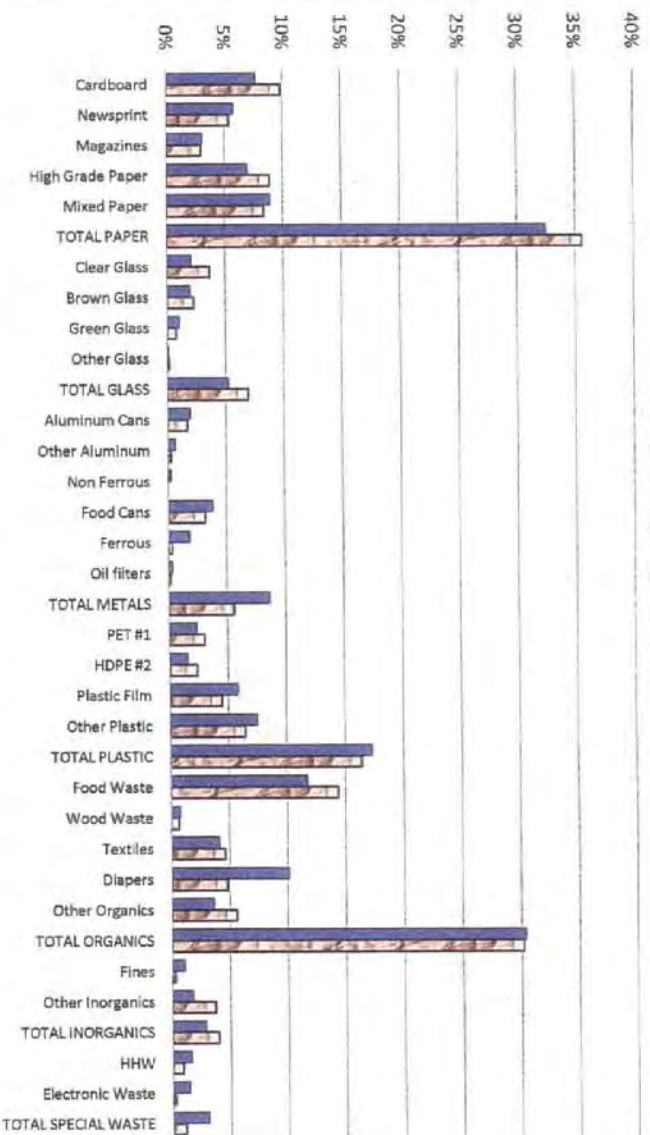


Chart 2.2 - Courtney Ridge Results Fall 2006 vs. Spring 2007
Percentage by Volume

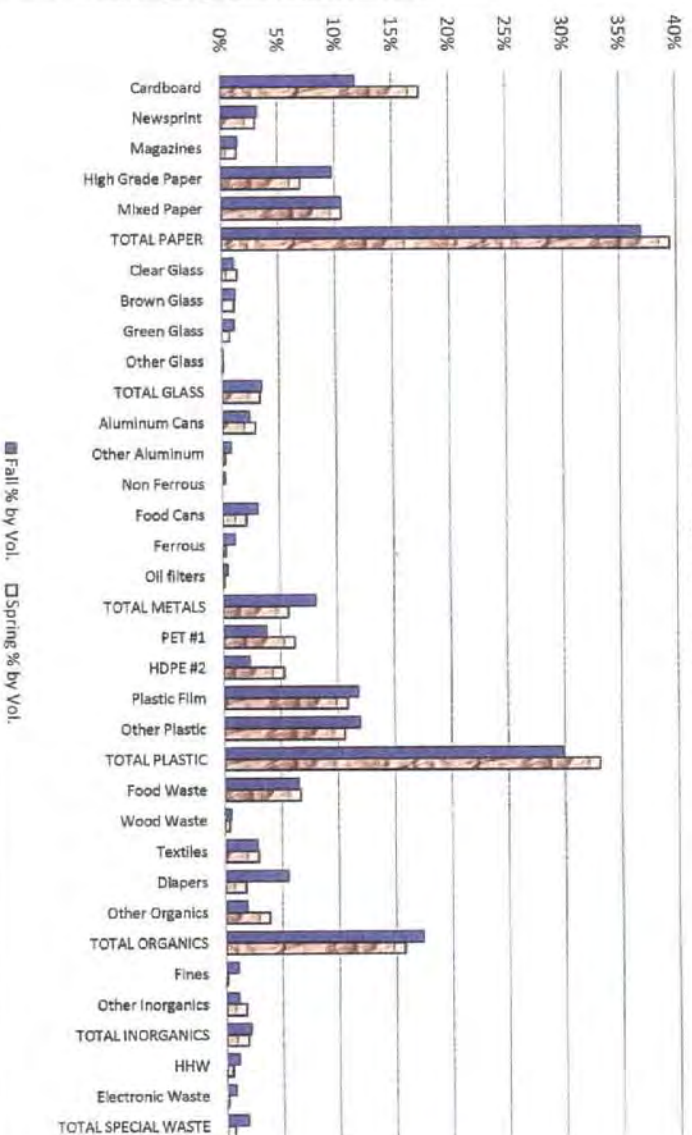


Table 2.4 - Waste Composition Summary and Comparison for Courtney Ridge Landfill 1996-1997 to 2006-2007

	Fall Sort - 10/24-10/25/06				Spring Sort - 6/7-6/8/07				Total 2006-2007 Sort Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.*	% by Wt.	% by Wt.
Cardboard	147	7.7%	2.175	11.8%	214	9.9%	3.13	17.4%	361	8.9%	5.30	14.6%	6.4%	8.9%	2.5%
Newsprint	111	5.8%	0.600	3.3%	117	5.4%	0.55	3.1%	228	5.6%	1.15	3.2%	13.1%	5.6%	-7.5%
Magazines	59	3.1%	0.275	1.5%	66	3.0%	0.25	1.4%	125	3.1%	0.53	1.4%	4.4%	3.1%	-1.3%
High Grade Paper	133	7.0%	1.800	9.8%	193	8.9%	1.25	7.0%	326	8.0%	3.05	8.4%	3.8%	8.0%	4.2%
Mixed Paper	170	8.9%	1.950	10.6%	182	8.4%	1.90	10.6%	352	8.6%	3.85	10.6%	13.7%	8.6%	-5.1%
TOTAL PAPER	620	32.5%	6.800	37.0%	772	35.6%	7.08	39.5%	1,392	34.2%	13.88	38.2%	41.4%	34.2%	-7.2%
Clear Glass	40	2.1%	0.200	1.1%	80	3.7%	0.25	1.4%	120	2.9%	0.45	1.2%	3.0%	2.9%	-0.1%
Brown Glass	37	1.9%	0.225	1.2%	50	2.3%	0.20	1.1%	87	2.1%	0.43	1.2%	1.6%	2.1%	0.5%
Green Glass	20	1.0%	0.200	1.1%	17	0.8%	0.13	0.7%	37	0.9%	0.33	0.9%	0.5%	0.9%	0.4%
Other Glass	2	0.1%	0.025	0.1%	4	0.2%	0.03	0.1%	6	0.1%	0.05	0.1%	0.8%	0.1%	-0.7%
TOTAL GLASS	99	5.2%	0.650	3.5%	151	7.0%	0.60	3.3%	250	6.1%	1.25	3.4%	5.9%	6.1%	0.2%
Aluminum Cans	36	1.9%	0.450	2.4%	37	1.7%	0.53	2.9%	73	1.8%	0.98	2.7%	1.7%	1.8%	0.1%
Other Aluminum	12	0.6%	0.150	0.8%	6	0.3%	0.05	0.3%	18	0.4%	0.20	0.6%	0.8%	0.4%	-0.4%
Non Ferrous	4	0.2%	0.050	0.3%	-	0.0%	-	0.0%	4	0.1%	0.05	0.1%	0.2%	0.1%	-0.1%
Food Cans	73	3.8%	0.575	3.1%	69	3.2%	0.38	2.1%	142	3.5%	0.95	2.6%	2.7%	3.5%	0.8%
Ferrous	34	1.8%	0.200	1.1%	7	0.3%	0.05	0.3%	41	1.0%	0.25	0.7%	0.9%	1.0%	0.1%
Oil filters	6	0.3%	0.075	0.4%	2	0.1%	0.03	0.1%	8	0.2%	0.10	0.3%	0.0%	0.2%	0.2%
TOTAL METALS	165	8.6%	1.500	8.2%	121	5.6%	1.03	5.7%	286	7.0%	2.53	7.0%	6.3%	7.0%	0.7%
PET #1	45	2.4%	0.700	3.8%	66	3.0%	1.13	6.3%	111	2.7%	1.83	5.0%	1.5%	2.7%	1.2%
HDPE #2	30	1.6%	0.425	2.3%	52	2.4%	0.95	5.3%	82	2.0%	1.38	3.8%	2.0%	2.0%	0.0%
Plastic Film	112	5.9%	2.175	11.8%	97	4.5%	1.95	10.9%	209	5.1%	4.13	11.4%	3.2%	5.1%	1.9%
Other Plastic	143	7.5%	2.200	12.0%	141	6.5%	1.90	10.6%	284	7.0%	4.10	11.3%	5.8%	7.0%	1.2%
TOTAL PLASTIC	330	17.3%	5.500	29.9%	356	16.4%	5.93	33.1%	686	16.8%	11.43	31.5%	12.5%	16.8%	4.3%
Food Waste	224	11.7%	1.200	6.5%	312	14.4%	1.20	6.7%	536	13.2%	2.40	6.6%	15.2%	13.2%	-2.0%
Wood Waste	15	0.8%	0.100	0.5%	15	0.7%	0.08	0.4%	30	0.7%	0.18	0.5%	1.0%	0.7%	-0.3%
Textiles	79	4.1%	0.525	2.9%	101	4.7%	0.53	2.9%	180	4.4%	1.05	2.9%	3.7%	4.4%	0.7%
Diapers	193	10.1%	1.025	5.6%	105	4.8%	0.33	1.8%	298	7.3%	1.35	3.7%	4.8%	7.3%	2.5%
Other Organics	69	3.6%	0.350	1.9%	122	5.6%	0.70	3.9%	191	4.7%	1.05	2.9%	4.1%	4.7%	0.6%
TOTAL ORGANICS	580	30.4%	3.200	17.4%	655	30.2%	2.83	15.8%	1,235	30.3%	6.03	16.6%	28.8%	30.3%	1.5%
Fines	21	1.1%	0.200	1.1%	6	0.3%	0.03	0.1%	27	0.7%	0.23	0.6%	3.0%	0.7%	-2.3%
Other Inorganics	34	1.8%	0.200	1.1%	81	3.7%	0.33	1.8%	115	2.8%	0.53	1.4%	2.2%	2.8%	0.6%
TOTAL INORGANICS	55	2.9%	0.400	2.2%	87	4.0%	0.35	2.0%	142	3.5%	0.75	2.1%	5.2%	3.5%	-1.7%
HHW	31	1.6%	0.200	1.1%	20	0.9%	0.10	0.6%	51	1.3%	0.30	0.8%	n/a	1.3%	1.3%
Electronic Waste	28	1.5%	0.150	0.8%	5	0.2%	0.03	0.1%	33	0.8%	0.18	0.5%	n/a	0.8%	0.8%
TOTAL SPECIAL WASTE	59	3.1%	0.350	1.9%	25	1.2%	0.13	0.7%	84	2.1%	0.48	1.3%		2.1%	2.1%
TOTAL COMPOSITION	1,908	100%	18.4	100%	2,167	100%	17.93	100%	4,075	100%	36.3	100%	100%	100%	0%

*NOTE: Courtney Ridge was not sampled in 1996-1997 WCS. Comparisons used are results from nearest site from 1996-1997, Lee's Summit Landfill.

**Table 2.5 - Waste Composition Summary and Comparison Courtney Ridge Landfill
Site to 2006-2007 Overall Average**

	Fall Sort - 10/24-10/25/06				Spring Sort - 6/7-6/8/07				Total 2006-2007 Results for Site				Avg. All Sites	Courtney Rdg.	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.*	% by Wt.	% by Wt.
Cardboard	147	7.7%	2.175	11.8%	214	9.9%	3.13	17.4%	361	8.9%	5.30	14.6%	8.20%	8.86%	0.7%
Newsprint	111	5.8%	0.600	3.3%	117	5.4%	0.55	3.1%	228	5.6%	1.15	3.2%	5.17%	5.60%	0.4%
Magazines	59	3.1%	0.275	1.5%	66	3.0%	0.25	1.4%	125	3.1%	0.53	1.4%	3.66%	3.07%	-0.6%
High Grade Paper	133	7.0%	1.800	9.8%	193	8.9%	1.25	7.0%	326	8.0%	3.05	8.4%	6.40%	8.00%	1.6%
Mixed Paper	170	8.9%	1.950	10.6%	182	8.4%	1.90	10.6%	352	8.6%	3.85	10.6%	10.20%	8.64%	-1.6%
TOTAL PAPER	620	32.5%	6.800	37.0%	772	35.6%	7.08	39.5%	1,392	34.2%	13.88	38.2%	33.63%	34.16%	0.5%
Clear Glass	40	2.1%	0.200	1.1%	80	3.7%	0.25	1.4%	120	2.9%	0.45	1.2%	2.71%	2.94%	0.2%
Brown Glass	37	1.9%	0.225	1.2%	50	2.3%	0.20	1.1%	87	2.1%	0.43	1.2%	1.77%	2.13%	0.4%
Green Glass	20	1.0%	0.200	1.1%	17	0.8%	0.13	0.7%	37	0.9%	0.33	0.9%	0.63%	0.91%	0.3%
Other Glass	2	0.1%	0.025	0.1%	4	0.2%	0.03	0.1%	6	0.1%	0.05	0.1%	0.32%	0.15%	-0.2%
TOTAL GLASS	99	5.2%	0.650	3.5%	151	7.0%	0.60	3.3%	250	6.1%	1.25	3.4%	5.44%	6.13%	0.7%
Aluminum Cans	36	1.9%	0.450	2.4%	37	1.7%	0.53	2.9%	73	1.8%	0.98	2.7%	1.59%	1.79%	0.2%
Other Aluminum	12	0.6%	0.150	0.8%	6	0.3%	0.05	0.3%	18	0.4%	0.20	0.6%	0.34%	0.44%	0.1%
Non Ferrous	4	0.2%	0.050	0.3%	-	0.0%	-	0.0%	4	0.1%	0.05	0.1%	0.23%	0.10%	-0.1%
Food Cans	73	3.8%	0.575	3.1%	69	3.2%	0.38	2.1%	142	3.5%	0.95	2.6%	2.93%	3.48%	0.6%
Ferrous	34	1.8%	0.200	1.1%	7	0.3%	0.05	0.3%	41	1.0%	0.25	0.7%	0.87%	1.01%	0.1%
Oil filters	6	0.3%	0.075	0.4%	2	0.1%	0.03	0.1%	8	0.2%	0.10	0.3%	0.08%	0.20%	0.1%
TOTAL METALS	165	8.6%	1.500	8.2%	121	5.6%	1.03	5.7%	286	7.0%	2.53	7.0%	6.04%	7.02%	1.0%
PET #1	45	2.4%	0.700	3.8%	66	3.0%	1.13	6.3%	111	2.7%	1.83	5.0%	2.55%	2.72%	0.2%
HDPE #2	30	1.6%	0.425	2.3%	52	2.4%	0.95	5.3%	82	2.0%	1.38	3.8%	1.90%	2.01%	0.1%
Plastic Film	112	5.9%	2.175	11.8%	97	4.5%	1.95	10.9%	209	5.1%	4.13	11.4%	4.82%	5.13%	0.3%
Other Plastic	143	7.5%	2.200	12.0%	141	6.5%	1.90	10.6%	284	7.0%	4.10	11.3%	7.99%	6.97%	-1.0%
TOTAL PLASTIC	330	17.3%	5.500	29.9%	356	16.4%	5.93	33.1%	686	16.8%	11.43	31.5%	17.25%	16.83%	-0.4%
Food Waste	224	11.7%	1.200	6.5%	312	14.4%	1.20	6.7%	536	13.2%	2.40	6.6%	17.22%	13.15%	-4.1%
Wood Waste	15	0.8%	0.100	0.5%	15	0.7%	0.08	0.4%	30	0.7%	0.18	0.5%	1.19%	0.74%	-0.5%
Textiles	79	4.1%	0.525	2.9%	101	4.7%	0.53	2.9%	180	4.4%	1.05	2.9%	4.73%	4.42%	-0.3%
Diapers	193	10.1%	1.025	5.6%	105	4.8%	0.33	1.8%	298	7.3%	1.35	3.7%	5.48%	7.31%	1.8%
Other Organics	69	3.6%	0.350	1.9%	122	5.6%	0.70	3.9%	191	4.7%	1.05	2.9%	2.97%	4.69%	1.7%
TOTAL ORGANICS	580	30.4%	3.200	17.4%	655	30.2%	2.83	15.8%	1,235	30.3%	6.03	16.6%	31.59%	30.31%	-1.3%
Fines	21	1.1%	0.200	1.1%	6	0.3%	0.03	0.1%	27	0.7%	0.23	0.6%	0.93%	0.66%	-0.3%
Other Inorganics	34	1.8%	0.200	1.1%	81	3.7%	0.33	1.8%	115	2.8%	0.53	1.4%	3.21%	2.82%	-0.4%
TOTAL INORGANICS	55	2.9%	0.400	2.2%	87	4.0%	0.35	2.0%	142	3.5%	0.75	2.1%	4.14%	3.48%	-0.7%
HHW	31	1.6%	0.200	1.1%	20	0.9%	0.10	0.6%	51	1.3%	0.30	0.8%	0.92%	1.25%	0.3%
Electronic Waste	28	1.5%	0.150	0.8%	5	0.2%	0.03	0.1%	33	0.8%	0.18	0.5%	0.99%	0.81%	-0.2%
TOTAL SPECIAL WASTE	59	3.1%	0.350	1.9%	25	1.2%	0.13	0.7%	84	2.1%	0.48	1.3%	1.91%	2.06%	0.2%
TOTAL COMPOSITION	1,908	100%	18.4	100%	2,167	100%	17.93	100%	4,075	100%	36.3	100%	100%	100%	0%

Chart 2.3 - Courtney Ridge Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

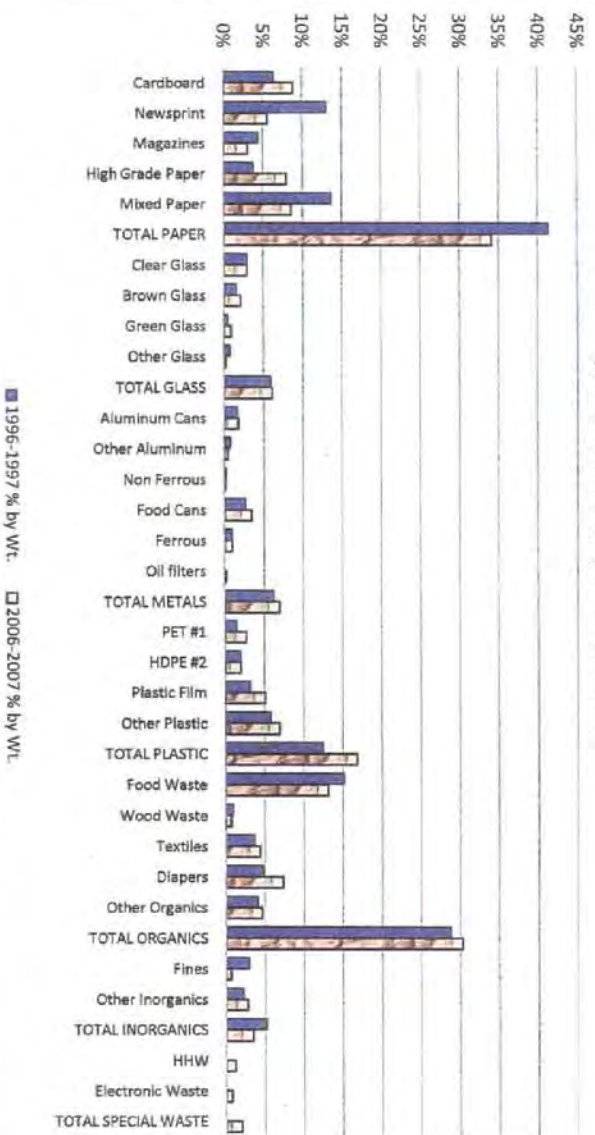


Chart 2.4 - Courtney Ridge Results 2006-2007 vs. 2006-2007 Sort Average

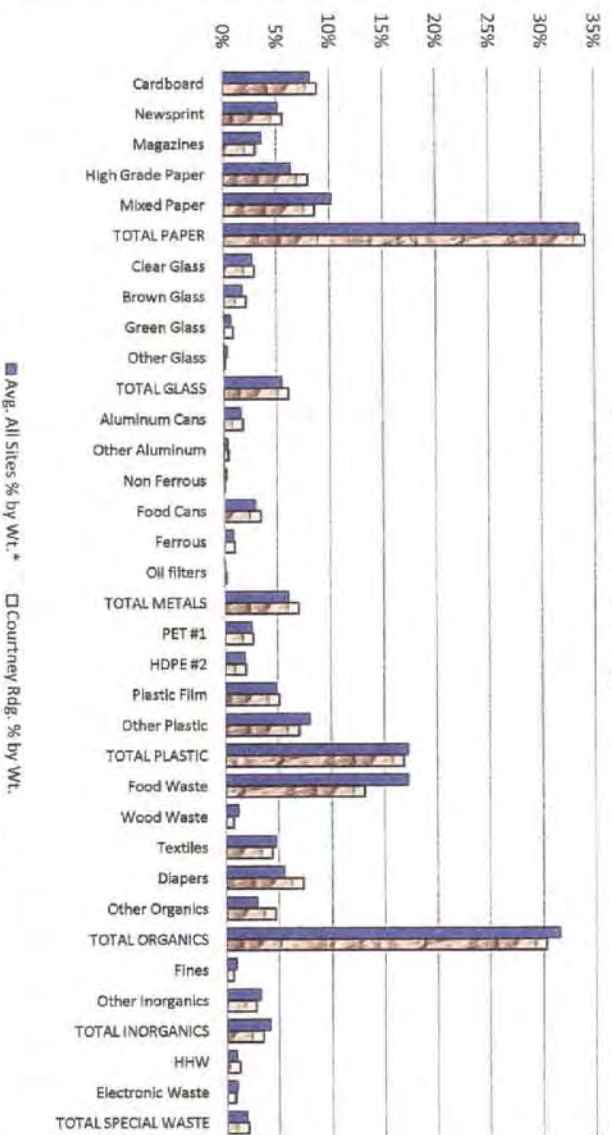


Table 2.6 - Special Waste Sorted at Courtney Ridge Landfill

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)	1	
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	1	2
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller	2	1
Electronic Toy or Game		
Computer Hard Drive		
Computer Monitor		
Computer Keyboard	1	
Computer Mouse		
Computer Printer	1	
Toner Cartridge		
Telephone/Answering Machine		
Cell Phones, Chargers		2
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	14	Full Bottle
Paint, Thinner, etc.	3	
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	
Oil Filters		
Household Cleaners		
Yard & Garden Spray, Powder, etc.		3
Insect & Animal Repellant Spray, Powder, Poison, etc.	9	1
Over The Counter & Prescription Medicine	18	Several
Beauty & Hygiene Products		1
Disposable Razors	14	
Alkaline Batteries	20	35
Lithium & Other Batteries	1	
Smoke Alarm		

Weight of Batteries Reported by RBRC

27.6 oz.

40.7 oz.

Appendix 3

Lee's Summit Landfill

APPENDIX 3 - LEE'S SUMMIT SANITARY LANDFILL

Lee's Summit Sanitary Landfill is owned and operated by the city of Lee's Summit south of Highway 50 and 291. Lee's Summit is part of the southeastern Kansas City metropolitan area. Lee's Summit Landfill is located in southern Jackson County near neighboring Cass County which is part of Solid Waste Management District E.

Demographics:

	<u>City of Lee's Summit</u>	<u>Jackson County</u>
Population	71,074	654,880
Number of Households	26,546	266,501
Average Household Size	2.65	2.42
Median Household Income	\$60,905	\$39,277

Solid Waste Collection

Various private and city haulers from the Kansas City metropolitan area service customers in the area of the Lee's Summit Sanitary Landfill. Six private haulers who serve the city's residential customers are required by the city to offer curbside recycling. Commercial recycling services are offered by many private haulers and recycling companies throughout the Lee's Summit and Kansas City metropolitan area.

Solid Waste Disposal

Lee's Summit Sanitary Landfill is owned and operated by the city of Lee's Summit. Tipping fees are \$31.11 per ton and 92,728 tons were received at this landfill during calendar year 2006.

Waste Reduction, Recycling, and Recovery Programs

The Lee's Summit landfill, which opened in 1984, is part of the city's Resource Recovery Park which provides many recycling services to residents and businesses in the southeastern region of the Kansas City metropolitan area, specifically, southern Jackson County and northern Cass County. From the 1990s until now the park has added the following services: a drop-off recycling center, a yard waste collection center, an HHW collection facility, large appliance recycling and a clean wood waste recycling program. The drop-off recycling, yard waste and clean wood waste recycling programs are open to any resident or business who wants to use them regardless of city or state of origin. The appliance recycling program is open to residents only. The HHW collection facility is open only to Missouri residents from Platte, Clay, Ray, Jackson and Cass counties. Over 74,000 pounds of HHW was received at the facility in 2006.

City Scrap Metal, a private recycling company, also offers a wide array of recycling options for residents and businesses in the area. They recycle large appliances, scrap metal and common household recyclable items.

Lee's Summit Sanitary Landfill Sort Results

Sampling information and composition results are listed in Tables 3.1 through 3.6 and exhibited in Charts 3.1 through 3.4. The sorters remarked that yard waste was found in two of the spring samples. Comparing the

Lee's Summit results with the 1996-1997 WCS results at this site, the categories having significant differences include Paper (7.7% less), Plastics(3.8% more) and Organics(5.9% more.)

Compared to the 2006-2007 overall sort average, the only category with substantial variance is Organics, which tallied 3.1% more than the average. By category and subcategory, Lee's Summit had the highest percentage by volume of Magazines(2.46) and Total Organics(19.66) when compared to the other 2006-2007 sampled sites. Further, Lee's Summit had the lowest percentage by weight of Total Glass(4.36) and Household Hazardous Waste(.44).

Table 3.1 - Sample Summary - Lee's Summit Sanitary Landfill

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	181	1.6	100%	0%	Kansas City
2	214	1.5	95%	5%	Lee's Summit
3	267	1.9	95%	5%	John Knox Village
4	212	1.6	90%	10%	Lee's Summit
5	201	1.5	80%	20%	Blue Springs
6	222	2.0	90%	10%	Grain Valley
7	189	1.9	80%	20%	Oak Grove
8	250	2.3	90%	10%	Blue Springs
Total Fall	1736	14.3			
Average	217	1.8	90%	10%	
Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	284	2.3	70%	30%	Lee's Summit
2	303	2.8	60%	40%	Lee's Summit
3	328	2.5	100%	0%	Lee's Summit/Raytown
4	264	2.2	100%	0%	Grandview
5	289	2.4	100%	0%	Jackson County
6	316	2.4	90%	10%	Blue Springs
7	241	2.2	95%	5%	Blue Springs
8	349	2.5	100%	0%	Blue Springs
Total Spring	2374	19.3			
Average	297	2.4	89%	11%	
Site Total	4110	33.6			
Average	257	2.1	90%	10%	
Estimated Waste (lbs.) Accepted at Site During Sample Periods					1,824,157

Table 3.2 - Lee's Summit Landfill Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	127	15.9	7.3%	1.7	0.213	11.9%
Newsprint	112	14.0	6.5%	0.65	0.081	4.6%
Magazines	120	15.0	6.9%	0.575	0.072	4.0%
High Grade Paper	92	11.5	5.3%	0.775	0.097	5.4%
Mixed Paper	125	15.6	7.2%	1.45	0.181	10.2%
PAPER TOTALS	576	72.0	33.2%	5.15	0.644	36.1%
Clear Glass	59	7.4	3.4%	0.325	0.041	2.3%
Brown Glass	28	3.5	1.6%	0.2	0.025	1.4%
Green Glass	9	1.1	0.5%	0.075	0.009	0.5%
Other Glass	3	0.4	0.2%	0.025	0.003	0.2%
GLASS TOTALS	99	12.4	5.7%	0.625	0.078	4.4%
Aluminum Cans	27	3.4	1.6%	0.35	0.044	2.5%
Other Aluminum	5	0.6	0.3%	0.05	0.006	0.4%
Non Ferrous	5	0.6	0.3%	0.05	0.006	0.4%
Food Cans	52	6.5	3.0%	0.4	0.050	2.8%
Ferrous	14	1.8	0.8%	0.125	0.016	0.9%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	103	12.9	5.9%	0.975	0.122	6.8%
PET #1	36	4.5	2.1%	0.45	0.056	3.2%
HDPE #2	29	3.6	1.7%	0.475	0.059	3.3%
Plastic Film	53	6.6	3.1%	1.125	0.141	7.9%
Other Plastic	132	16.5	7.6%	1.675	0.209	11.8%
PLASTIC TOTALS	250	31.3	14.4%	3.725	0.466	26.1%
Food Waste	308	38.5	17.7%	1.5	0.188	10.5%
Wood Waste	9	1.1	0.5%	0.075	0.009	0.5%
Textiles	115	14.4	6.6%	0.775	0.097	5.4%
Diapers	175	21.9	10.1%	0.85	0.106	6.0%
Other Organics	40	5.0	2.3%	0.25	0.031	1.8%
ORGANIC TOTALS	647	80.9	37.3%	3.45	0.431	24.2%
Fines	15	1.9	0.9%	0.1	0.013	0.7%
Other Inorganics	24	3.0	1.4%	0.15	0.019	1.1%
INORGANIC TOTALS	39	4.9	2.2%	0.25	0.031	1.8%
HHW	7	0.9	0.4%	0.05	0.006	0.4%
Electronic Waste	15	1.9	0.9%	0.05	0.006	0.4%
SPECIAL WASTE TOTALS	22	2.8	1.3%	0.1	0.013	0.7%
TOTAL	1736	217.0	100%	14.250	1.781	100%

Table 3.3 - Lee's Summit Landfill Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	202	25.3	8.5%	2.825	0.353	14.6%
Newsprint	143	17.9	6.0%	0.725	0.091	3.8%
Magazines	54	6.8	2.3%	0.25	0.031	1.3%
High Grade Paper	153	19.1	6.4%	1.15	0.144	6.0%
Mixed Paper	257	32.1	10.8%	2.575	0.322	13.3%
PAPER TOTALS	809	101.1	34.1%	7.525	0.941	39.0%
Clear Glass	39	4.9	1.6%	0.15	0.019	0.8%
Brown Glass	26	3.3	1.1%	0.1	0.013	0.5%
Green Glass	8	1.0	0.3%	0.05	0.006	0.3%
Other Glass	7	0.9	0.3%	0.05	0.006	0.3%
GLASS TOTALS	80	10.0	3.4%	0.35	0.044	1.8%
Aluminum Cans	32	4.0	1.3%	0.475	0.059	2.5%
Other Aluminum	3	0.4	0.1%	0.025	0.003	0.1%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	47	5.9	2.0%	0.3	0.038	1.6%
Ferrous	9	1.1	0.4%	0.025	0.003	0.1%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	91	11.4	3.8%	0.825	0.103	4.3%
PET #1	60	7.5	2.5%	1	0.125	5.2%
HDPE #2	58	7.3	2.4%	1.05	0.131	5.4%
Plastic Film	93	11.6	3.9%	1.775	0.222	9.2%
Other Plastic	208	26.0	8.8%	2.85	0.356	14.8%
PLASTIC TOTALS	419	52.4	17.6%	6.675	0.834	34.6%
Food Waste	438	54.8	18.4%	1.525	0.191	7.9%
Wood Waste	55	6.9	2.3%	0.175	0.022	0.9%
Textiles	136	17.0	5.7%	0.725	0.091	3.8%
Diapers	50	6.3	2.1%	0.2	0.025	1.0%
Other Organics	101	12.6	4.3%	0.525	0.066	2.7%
ORGANIC TOTALS	780	97.5	32.9%	3.15	0.394	16.3%
Fines	12	1.5	0.5%	0.1	0.013	0.5%
Other Inorganics	135	16.9	5.7%	0.5	0.063	2.6%
INORGANIC TOTALS	147	18.4	6.2%	0.6	0.075	3.1%
HHW	11	1.4	0.5%	0.05	0.006	0.3%
Electronic Waste	37	4.6	1.6%	0.1	0.013	0.5%
SPECIAL WASTE TOTALS	48	6.0	2.0%	0.15	0.019	0.8%
TOTAL	2374	296.8	100%	19.30	2.413	100%

Chart 3.1 - Lee's Summit Results Fall 2006 vs. Spring 2007
Percentage by Weight

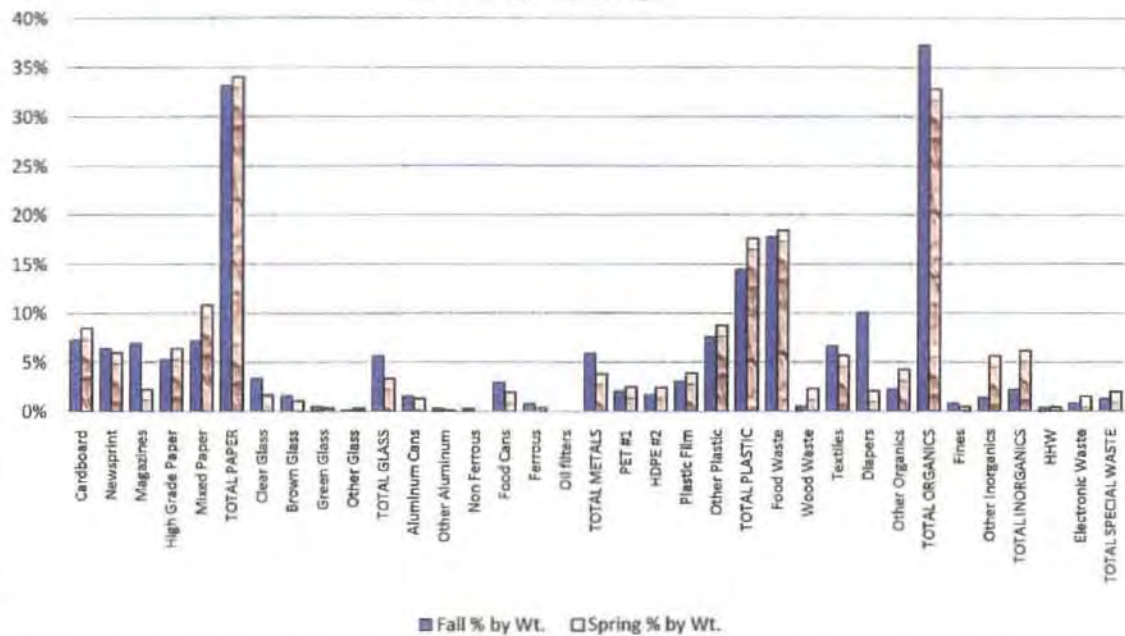


Chart 3.2- Lee's Summit Results Fall 2006 vs. Spring 2007
Percentage by Volume

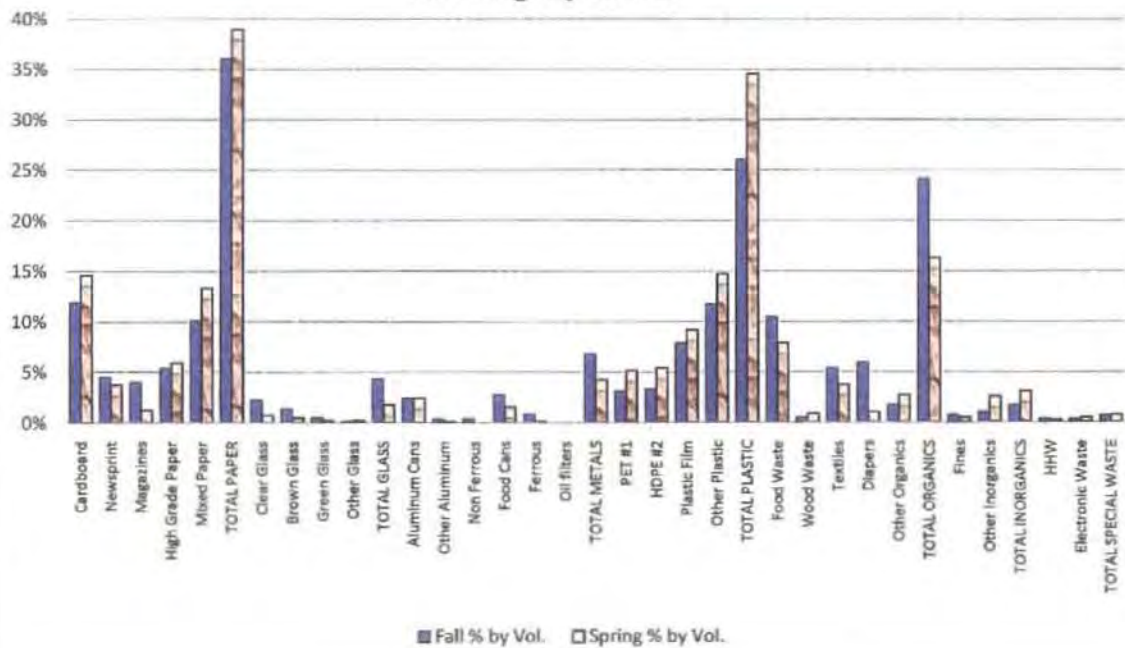


Table 3.4 - Waste Composition Summary and Comparison Lee's Summit Landfill 1996-1997 to 2006-2007

	Fall Sort - 10/23-10/24/06				Spring Sort - 6/5-6/6/07				Total 2006-2007 Sort Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	127	7.3%	1.70	11.9%	202	8.5%	2.83	14.6%	329	8.0%	4.53	13.5%	6.4%	8.00%	1.6%
Newsprint	112	6.5%	0.65	4.6%	143	6.0%	0.73	3.8%	255	6.2%	1.38	4.1%	13.1%	6.20%	-6.9%
Magazines	120	6.9%	0.58	4.0%	54	2.3%	0.25	1.3%	174	4.2%	0.83	2.5%	4.4%	4.23%	-0.2%
High Grade Paper	92	5.3%	0.78	5.4%	153	6.4%	1.15	6.0%	245	6.0%	1.93	5.7%	3.8%	5.96%	2.2%
Mixed Paper	125	7.2%	1.45	10.2%	257	10.8%	2.58	13.3%	382	9.3%	4.03	12.0%	13.7%	9.29%	-4.4%
TOTAL PAPER	576	33.2%	5.15	36.1%	809	34.1%	7.53	39.0%	1,385	33.7%	12.68	37.8%	41.4%	33.70%	-7.7%
Clear Glass	59	3.4%	0.33	2.3%	39	1.6%	0.15	0.8%	98	2.4%	0.48	1.4%	3.0%	2.38%	-0.6%
Brown Glass	28	1.6%	0.20	1.4%	26	1.1%	0.10	0.5%	54	1.3%	0.30	0.9%	1.6%	1.31%	-0.3%
Green Glass	9	0.5%	0.08	0.5%	8	0.3%	0.05	0.3%	17	0.4%	0.13	0.4%	0.5%	0.41%	-0.1%
Other Glass	3	0.2%	0.03	0.2%	7	0.3%	0.05	0.3%	10	0.2%	0.08	0.2%	0.8%	0.24%	-0.6%
TOTAL GLASS	99	5.7%	0.63	4.4%	80	3.4%	0.35	1.8%	179	4.4%	0.98	2.9%	5.9%	4.36%	-1.5%
Aluminum Cans	27	1.6%	0.35	2.5%	32	1.3%	0.48	2.5%	59	1.4%	0.83	2.5%	1.7%	1.44%	-0.3%
Other Aluminum	5	0.3%	0.05	0.4%	3	0.1%	0.03	0.1%	8	0.2%	0.08	0.2%	0.8%	0.19%	-0.6%
Non Ferrous	5	0.3%	0.05	0.4%	-	0.0%	-	0.0%	5	0.1%	0.05	0.1%	0.2%	0.12%	-0.1%
Food Cans	52	3.0%	0.40	2.8%	47	2.0%	0.30	1.6%	99	2.4%	0.70	2.1%	2.7%	2.41%	-0.3%
Ferrous	14	0.8%	0.13	0.9%	9	0.4%	0.03	0.1%	23	0.6%	0.15	0.4%	0.9%	0.56%	-0.3%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	0.0%	0.00%	0.0%
TOTAL METALS	103	5.9%	0.98	6.8%	91	3.8%	0.83	4.3%	194	4.7%	1.80	5.4%	6.3%	4.72%	-1.6%
PET #1	36	2.1%	0.45	3.2%	60	2.5%	1.00	5.2%	96	2.3%	1.45	4.3%	1.5%	2.34%	0.8%
HDPE #2	29	1.7%	0.48	3.3%	58	2.4%	1.05	5.4%	87	2.1%	1.53	4.5%	2.0%	2.12%	0.1%
Plastic Film	53	3.1%	1.13	7.9%	93	3.9%	1.78	9.2%	146	3.6%	2.90	8.6%	3.2%	3.55%	0.4%
Other Plastic	132	7.6%	1.68	11.7%	208	8.8%	2.85	14.8%	340	8.3%	4.53	13.5%	5.8%	8.27%	2.5%
TOTAL PLASTIC	250	14.4%	3.73	26.1%	419	17.6%	6.68	34.6%	669	16.3%	10.40	31.0%	12.5%	16.28%	3.8%
Food Waste	308	17.7%	1.50	10.5%	438	18.4%	1.53	7.9%	746	18.2%	3.03	9.0%	15.2%	18.15%	3.0%
Wood Waste	9	0.5%	0.08	0.5%	55	2.3%	0.18	0.9%	64	1.6%	0.25	0.7%	1.0%	1.56%	0.6%
Textiles	115	6.6%	0.78	5.4%	136	5.7%	0.73	3.8%	251	6.1%	1.50	4.5%	3.7%	6.11%	2.4%
Diapers	175	10.1%	0.85	6.0%	50	2.1%	0.20	1.0%	225	5.5%	1.05	3.1%	4.8%	5.47%	0.7%
Other Organics	40	2.3%	0.25	1.8%	101	4.3%	0.53	2.7%	141	3.4%	0.78	2.3%	4.1%	3.43%	-0.7%
TOTAL ORGANICS	647	37.3%	3.45	24.2%	780	32.9%	3.15	16.3%	1,427	34.7%	6.60	19.7%	28.8%	34.72%	5.9%
Fines	15	0.9%	0.10	0.7%	12	0.5%	0.10	0.5%	27	0.7%	0.20	0.6%	3.0%	0.66%	-2.3%
Other Inorganics	24	1.4%	0.15	1.1%	135	5.7%	0.50	2.6%	159	3.9%	0.65	1.9%	2.2%	3.87%	1.7%
TOTAL INORGANICS	39	2.2%	0.25	1.8%	147	6.2%	0.60	3.1%	186	4.5%	0.85	2.5%	5.2%	4.53%	-0.7%
HHW	7	0.4%	0.05	0.4%	11	0.5%	0.05	0.3%	18	0.4%	0.10	0.3%	n/a	0.44%	0.4%
Electronic Waste	15	0.9%	0.05	0.4%	37	1.6%	0.10	0.5%	52	1.3%	0.15	0.4%	na	1.27%	1.3%
TOTAL SPECIAL WASTE	22	1.3%	0.10	0.7%	48	2.0%	0.15	0.8%	70	1.7%	0.25	0.7%		1.70%	1.7%
TOTAL COMPOSITION	1,736	100%	14.3	100%	2,374	100%	19.30	100%	4,110	100%	33.6	100%	100%	100%	0%

**Table 3.5 - Waste Composition Summary and Comparison Lee's Summit Landfill
Site to 2006-2007 Overall Average**

	Fall Sort - 10/23-10/24/06				Spring Sort - 6/5-6/6/07				Total 2006-2007 Results for Site				Avg. All Sites	Lee's Summit	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	127	7.3%	1.70	11.9%	202	8.5%	2.83	14.6%	329	8.0%	4.53	13.5%	8.20%	8.0%	-0.2%
Newsprint	112	6.5%	0.65	4.6%	143	6.0%	0.73	3.8%	255	6.2%	1.38	4.1%	5.17%	6.2%	1.0%
Magazines	120	6.9%	0.58	4.0%	54	2.3%	0.25	1.3%	174	4.2%	0.83	2.5%	3.86%	4.2%	0.6%
High Grade Paper	92	5.3%	0.78	5.4%	153	6.4%	1.15	6.0%	245	6.0%	1.93	5.7%	6.40%	6.0%	-0.4%
Mixed Paper	125	7.2%	1.45	10.2%	257	10.8%	2.58	13.3%	382	9.3%	4.03	12.0%	10.20%	9.3%	-0.9%
TOTAL PAPER	576	33.2%	5.15	36.1%	809	34.1%	7.53	39.0%	1,385	33.7%	12.68	37.8%	33.63%	33.7%	0.1%
Clear Glass	59	3.4%	0.33	2.3%	39	1.6%	0.15	0.8%	98	2.4%	0.48	1.4%	2.71%	2.4%	-0.3%
Brown Glass	28	1.6%	0.20	1.4%	26	1.1%	0.10	0.5%	54	1.3%	0.30	0.9%	1.77%	1.3%	-0.5%
Green Glass	9	0.5%	0.08	0.5%	8	0.3%	0.05	0.3%	17	0.4%	0.13	0.4%	0.63%	0.4%	-0.2%
Other Glass	3	0.2%	0.03	0.2%	7	0.3%	0.05	0.3%	10	0.2%	0.08	0.2%	0.32%	0.2%	-0.1%
TOTAL GLASS	99	5.7%	0.63	4.4%	80	3.4%	0.35	1.8%	179	4.4%	0.98	2.9%	5.44%	4.4%	-1.1%
Aluminum Cans	27	1.6%	0.35	2.5%	32	1.3%	0.48	2.5%	59	1.4%	0.83	2.5%	1.59%	1.4%	-0.2%
Other Aluminum	5	0.3%	0.05	0.4%	3	0.1%	0.03	0.1%	8	0.2%	0.08	0.2%	0.34%	0.2%	-0.1%
Non Ferrous	5	0.3%	0.05	0.4%	-	0.0%	-	0.0%	5	0.1%	0.05	0.1%	0.23%	0.1%	-0.1%
Food Cans	52	3.0%	0.40	2.8%	47	2.0%	0.30	1.6%	99	2.4%	0.70	2.1%	2.93%	2.4%	-0.5%
Ferrous	14	0.8%	0.13	0.9%	9	0.4%	0.03	0.1%	23	0.6%	0.15	0.4%	0.87%	0.6%	-0.3%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	0.08%	0.0%	-0.1%
TOTAL METALS	103	5.9%	0.98	6.8%	91	3.8%	0.83	4.3%	194	4.7%	1.80	5.4%	6.04%	4.7%	-1.3%
PET #1	36	2.1%	0.45	3.2%	60	2.5%	1.00	5.2%	96	2.3%	1.45	4.3%	2.55%	2.3%	-0.2%
HDPE #2	29	1.7%	0.48	3.3%	58	2.4%	1.05	5.4%	87	2.1%	1.53	4.5%	1.90%	2.1%	0.2%
Plastic Film	53	3.1%	1.13	7.9%	93	3.9%	1.78	9.2%	146	3.6%	2.90	8.6%	4.82%	3.6%	-1.3%
Other Plastic	132	7.6%	1.68	11.7%	208	8.8%	2.85	14.8%	340	8.3%	4.53	13.5%	7.99%	8.3%	0.3%
TOTAL PLASTIC	250	14.4%	3.73	26.1%	419	17.6%	6.68	34.6%	669	16.3%	10.40	31.0%	17.25%	16.3%	-1.0%
Food Waste	308	17.7%	1.50	10.5%	438	18.4%	1.53	7.9%	746	18.2%	3.03	9.0%	17.22%	18.2%	0.9%
Wood Waste	9	0.5%	0.08	0.5%	55	2.3%	0.18	0.9%	64	1.6%	0.25	0.7%	1.19%	1.6%	0.4%
Textiles	115	6.6%	0.78	5.4%	136	5.7%	0.73	3.8%	251	6.1%	1.50	4.5%	4.73%	6.1%	1.4%
Diapers	175	10.1%	0.85	6.0%	50	2.1%	0.20	1.0%	225	5.5%	1.05	3.1%	5.48%	5.5%	0.0%
Other Organics	40	2.3%	0.25	1.8%	101	4.3%	0.53	2.7%	141	3.4%	0.78	2.3%	2.97%	3.4%	0.5%
TOTAL ORGANICS	647	37.3%	3.45	24.2%	780	32.9%	3.15	16.3%	1,427	34.7%	6.60	19.7%	31.59%	34.7%	3.1%
Fines	15	0.9%	0.10	0.7%	12	0.5%	0.10	0.5%	27	0.7%	0.20	0.6%	0.93%	0.7%	-0.3%
Other Inorganics	24	1.4%	0.15	1.1%	135	5.7%	0.50	2.6%	159	3.9%	0.65	1.9%	3.21%	3.9%	0.7%
TOTAL INORGANICS	39	2.2%	0.25	1.8%	147	6.2%	0.60	3.1%	186	4.5%	0.85	2.5%	4.14%	4.5%	0.4%
HHW	7	0.4%	0.05	0.4%	11	0.5%	0.05	0.3%	18	0.4%	0.10	0.3%	0.92%	0.4%	-0.5%
Electronic Waste	15	0.9%	0.05	0.4%	37	1.6%	0.10	0.5%	52	1.3%	0.15	0.4%	0.99%	1.3%	0.3%
TOTAL SPECIAL WASTE	22	1.3%	0.10	0.7%	48	2.0%	0.15	0.8%	70	1.7%	0.25	0.7%	1.91%	1.7%	-0.2%
TOTAL COMPOSITION	1,736	100%	14.3	100%	2,374	100%	19.30	100%	4,110	100%	33.6	100%	100%	100%	0%

Chart 3.3 - Lee's Summit Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

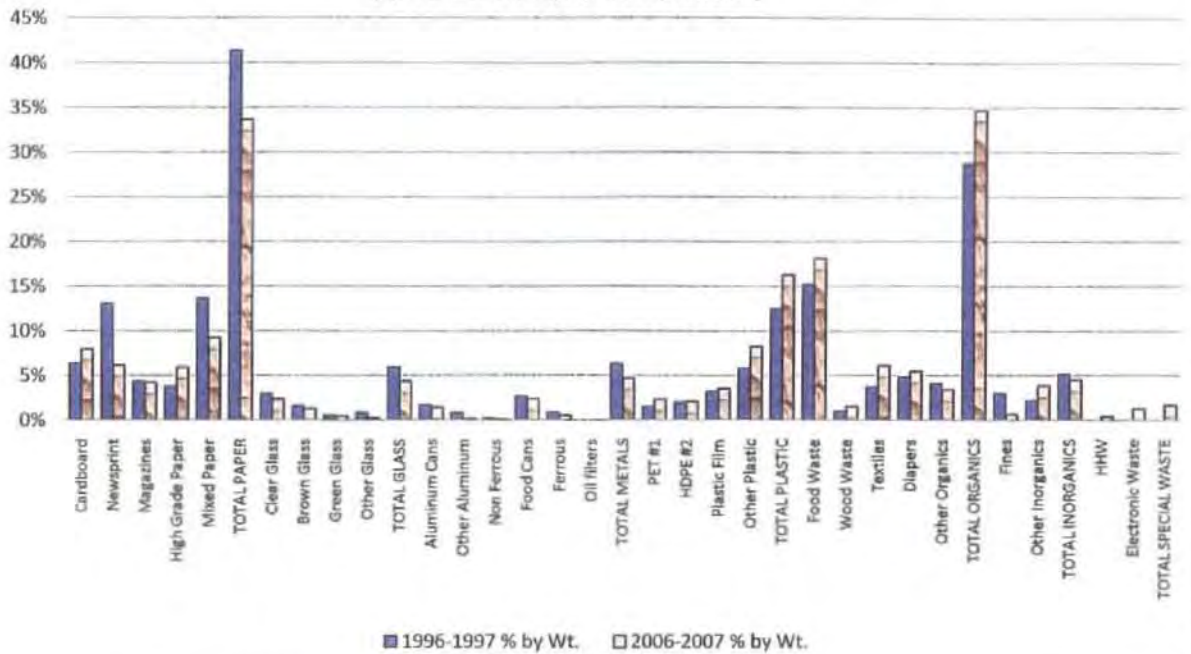


Chart 3.4 - Lee's Summit Results 2006-2007 vs. 2006-2007 Sort Average

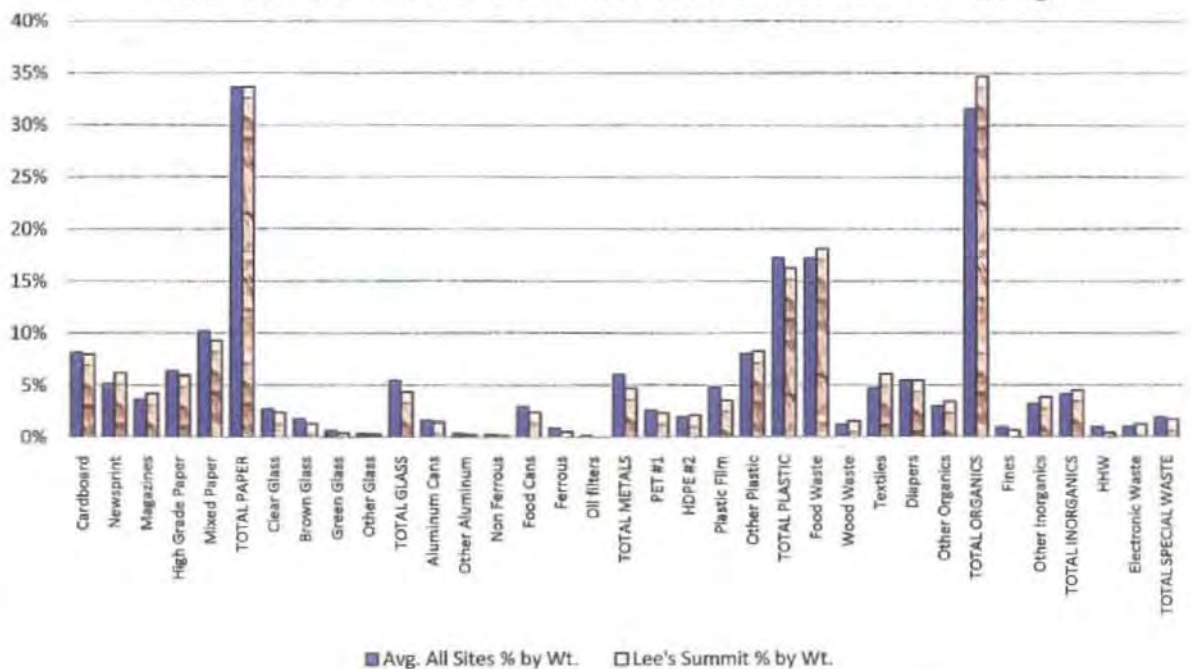


Table 3.6 - Special Waste Sorted at Lee's Summit Landfill

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)		2
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	1	3
TV, VCR, DVD player, Game Stations, etc.	1	
Remote Control or Game Controller		1
Electronic Toy or Game	4	
Computer Hard Drive		
Computer Monitor		1
Computer Keyboard		
Computer Mouse		
Computer Printer		
Toner Cartridge		
Telephone/Answering Machine		1
Cell Phones, Chargers		1
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	several	12
Paint, Thinner, etc.	1	1
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	
Oil Filters		
Household Cleaners		4
Yard & Garden Spray, Powder, etc.		1
Insect & Animal Repellant Spray, Powder, Poison, etc.	1	1
Over The Counter & Prescription Medicine		several
Beauty & Hygiene Products		4
Disposable Razors	several	
Alkaline Batteries	20	19
Lithium & Other Batteries		
Smoke Alarm		1

Weight of Batteries Reported by RBRC

25.9 oz.

13.6 oz.

Appendix 4

Maple Hill (Macon) Landfill

APPENDIX 4 – MAPLE HILL (MACON) LANDFILL

The Maple Hill landfill in Macon County is owned and operated by Veolia Environmental Services. It is located west of Macon just off of Highway 36. The landfill receives waste from the north central and mid-central areas of the state and is located in Solid Waste Management District G.

Demographics:

	<u>City of Macon</u>	<u>Macon County</u>
Population	5,423	15,762
Number of Households	2,385	6,494
Average Household Size	2.16	2.38
Median Household Income	\$26,738	\$30,195

Solid Waste Collection

Collection services for the area served by Maple Hill Landfill are primarily provided by Veolia Environmental Services. There are also some private haulers and municipalities that provide their own collection service prior to delivering the waste to Maple Hill.

Solid Waste Disposal

The service area for the Maple Hill Landfill spans several counties in Solid Waste Management District B, C, and G. Further, waste is transferred to Maple Hill from stations beyond these districts. Current public tipping fees are \$40.50 per ton and 179,006 tons were disposed in this landfill during calendar year 2006.

Waste Reduction, Recycling, and Recovery Programs

The service area of the Maple Hill Landfill is primarily rural. A drop-off recycling program is offered in Kirksville and the city of Moberly utilizes a pay as you throw trash service combined with a curbside recycling program.

Maple Hill (Macon) Landfill Sort Results

Sampling information and composition results are listed in Tables 4.1 through 4.6 and exhibited in Charts 4.1 through 4.4. Nothing extraordinary was noted by the sorters during the Macon sort. When comparing Macon's results with the 1996-1997 WCS results, two categories had significant changes, those being Paper (3.8% less) and Inorganics (3.2% more.)

Comparing Macon's composition to the overall 2006-2007 WCS average, the greatest variance was in the Inorganics, with 2.1% more than the average. This was due to broken sheet rock found in two of the loads during the fall sort. Macon's sort resulted in the highest percentage by weight of Other Inorganics(5.16) and Total Inorganics(6.28) when compared to the other 2006-2007 sampled sites, as well as the highest percentage by volume of Brown Glass(1.48), Green Glass(1.06), Total Glass(5.43), Food Cans(3.11), Total Metals(9.1), Textiles(4.59), Other Inorganics(2.75), and Total Inorganics(3.67). The lowest percentage by volume of categories and subcategories was recorded at Macon for Total Paper(34.37) and Total Plastic(28.58).

Table 4.1 - Sample Summary - Maple Hill (Macon) Landfill

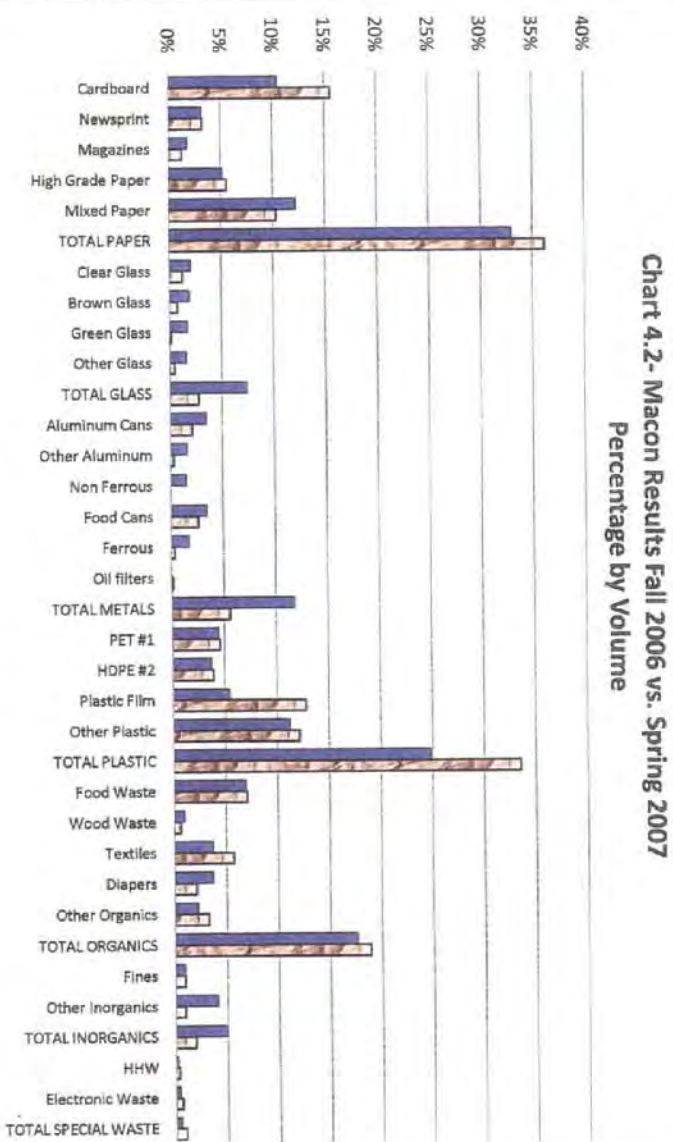
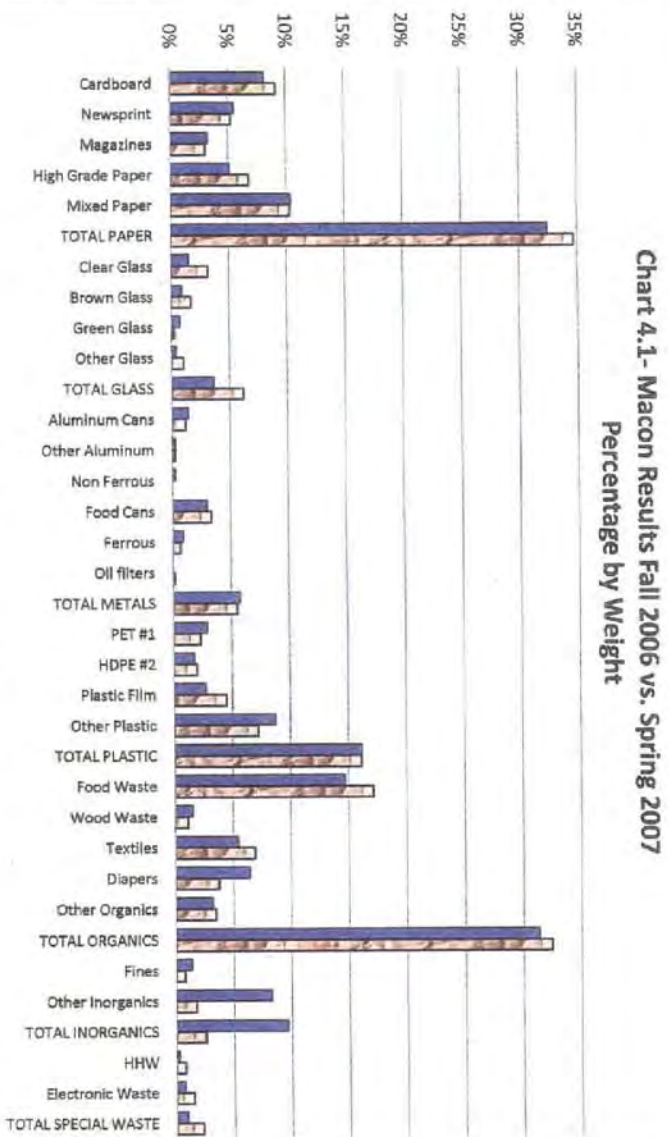
Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	263	2.4	80%	20%	Huntsville
2	306	2.4	90%	10%	Moberly
3	230	1.8	90%	10%	Moberly
4	199	1.7	80%	20%	Moberly
5	297	2.1	80%	20%	Moberly
6	313	2.7	90%	10%	Harrisburg
7	278	2.3	90%	10%	Marceline
8	313	4.9	90%	10%	Moberly
Total Fall	2199	20.2			
Average	275	2.5	86%	14%	
Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	232	1.8	100%	0%	Edina
2	235	1.6	95%	5%	Callao
3	236	1.9	90%	10%	Moberly
4	261	2.1	70%	30%	Kirksville
5	266	2.2	80%	20%	Kirksville
6	279	1.8	90%	10%	Huntsville
7	266	1.9	70%	30%	Rural Linn County
8	248	1.9	100%	0%	Kirksville
Total Spring	2023	15.2			
Average	253	1.9	87%	13%	
Site Total	4222	35.4			
Average	264	2.2	87%	13%	
Estimated Waste (lbs.) Accepted at Site During Sample Periods					3,521,430

Table 4.2 - Maple Hill (Macon) Landfill Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	180	22.5	8.2%	2.125	0.266	10.5%
Newsprint	121	15.125	5.5%	0.65	0.081	3.2%
Magazines	71	8.875	3.2%	0.375	0.047	1.9%
High Grade Paper	113	14.125	5.1%	1.05	0.131	5.2%
Mixed Paper	228	28.5	10.4%	2.475	0.309	12.2%
PAPER TOTALS	713	89	32.4%	6.675	0.834	33.0%
Clear Glass	34	4.25	1.5%	0.425	0.053	2.1%
Brown Glass	20	2.5	0.9%	0.4	0.050	2.0%
Green Glass	17	2.125	0.8%	0.35	0.044	1.7%
Other Glass	9	1.125	0.4%	0.325	0.041	1.6%
GLASS TOTALS	80	10	3.6%	1.5	0.188	7.4%
Aluminum Cans	31	3.875	1.4%	0.7	0.088	3.5%
Other Aluminum	6	0.75	0.3%	0.325	0.041	1.6%
Non Ferrous	5	0.625	0.2%	0.3	0.038	1.5%
Food Cans	65	8.125	3.0%	0.7	0.088	3.5%
Ferrous	20	2.5	0.9%	0.35	0.044	1.7%
Oil filters	0	0	0.0%	0	0.000	0.0%
METAL TOTALS	127	16	5.8%	2.375	0.297	11.7%
PET #1	64	8	2.9%	0.9	0.113	4.4%
HDPE #2	38	4.75	1.7%	0.75	0.094	3.7%
Plastic Film	61	7.625	2.8%	1.1	0.138	5.4%
Other Plastic	193	24.125	8.8%	2.275	0.284	11.2%
PLASTIC TOTALS	356	45	16.2%	5.025	0.628	24.8%
Food Waste	324	40.5	14.7%	1.4	0.175	6.9%
Wood Waste	34	4.25	1.5%	0.2	0.025	1.0%
Textiles	119	14.875	5.4%	0.75	0.094	3.7%
Diapers	142	17.75	6.5%	0.75	0.094	3.7%
Other Organics	70	8.75	3.2%	0.45	0.056	2.2%
ORGANIC TOTALS	689	86	31.3%	3.55	0.444	17.6%
Fines	31	3.875	1.4%	0.175	0.02	0.9%
Other Inorganics	182	22.75	8.3%	0.825	0.103	4.1%
INORGANIC TOTALS	213	27	9.7%	1	0.125	4.9%
HHW	5	0.625	0.2%	0.025	0.003	0.1%
Electronic Waste	16	2.0	0.7%	0.075	0.009	0.4%
SPECIAL WASTE TOTALS	21	2.6	1.0%	0.1	0.0125	0.5%
TOTAL	2199	274.9	100%	20.225	2.528	100%

Table 4.3 - Maple Hill (Macon) Landfill Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	186	23.3	9.2%	2.375	0.297	15.6%
Newsprint	107	13.4	5.3%	0.5	0.063	3.3%
Magazines	62	7.8	3.1%	0.2	0.025	1.3%
High Grade Paper	138	17.3	6.8%	0.85	0.106	5.6%
Mixed Paper	209	26.1	10.3%	1.575	0.197	10.4%
PAPER TOTALS	702	87.8	34.7%	5.5	0.688	36.2%
Clear Glass	65	8.1	3.2%	0.2	0.025	1.3%
Brown Glass	35	4.4	1.7%	0.125	0.016	0.8%
Green Glass	5	0.6	0.2%	0.025	0.003	0.2%
Other Glass	21	2.6	1.0%	0.075	0.009	0.5%
GLASS TOTALS	126	15.8	6.2%	0.425	0.053	2.8%
Aluminum Cans	24	3.0	1.2%	0.325	0.041	2.1%
Other Aluminum	5	0.6	0.2%	0.05	0.006	0.3%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	68	8.5	3.4%	0.4	0.050	2.6%
Ferrous	13	1.6	0.6%	0.05	0.006	0.3%
Oil filters (one)	2	0.3	0.1%	0.025	0.003	0.2%
METAL TOTALS	112	14.0	5.5%	0.85	0.106	5.6%
PET #1	47	5.9	2.3%	0.7	0.088	4.6%
HDPE #2	41	5.1	2.0%	0.6	0.075	3.9%
Plastic Film	92	11.5	4.6%	1.95	0.244	12.8%
Other Plastic	147	18.4	7.3%	1.85	0.231	12.2%
PLASTIC TOTALS	327	40.9	16.2%	5.1	0.638	33.6%
Food Waste	347	43.4	17.2%	1.075	0.134	7.1%
Wood Waste	23	2.9	1.1%	0.1	0.013	0.7%
Textiles	140	17.5	6.9%	0.875	0.109	5.8%
Diapers	76	9.5	3.8%	0.325	0.041	2.1%
Other Organics	71	8.9	3.5%	0.5	0.063	3.3%
ORGANIC TOTALS	657	82.1	32.5%	2.875	0.359	18.9%
Fines	16	2.0	0.8%	0.15	0.019	1.0%
Other Inorganics	36	4.5	1.8%	0.15	0.019	1.0%
INORGANIC TOTALS	52	6.5	2.6%	0.3	0.038	2.0%
HHW	16	2.0	0.8%	0.05	0.006	0.3%
Electronic Waste	31	3.9	1.5%	0.1	0.013	0.7%
SPECIAL WASTE TOTALS	47	5.9	2.3%	0.15	0.019	1.0%
TOTAL	2023	252.9	100%	15.2	1.900	100%



**Table 4.4 - Waste Composition Summary and Comparison for Maple Hill Landfill at Macon
1996-1997 to 2006-2007**

	Fall Sort - 10/11-10/12/06				Spring Sort - 6/12-6/13/07				Total 2006-2007 Sort Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	180	8.2%	2.13	10.5%	186	9.2%	2.38	15.6%	366	8.7%	4.50	12.70%	7.40%	8.67%	1.3%
Newsprint	121	5.5%	0.65	3.2%	107	5.3%	0.50	3.3%	228	5.4%	1.15	3.25%	5.80%	5.40%	-0.4%
Magazines	71	3.2%	0.38	1.9%	62	3.1%	0.20	1.3%	133	3.2%	0.58	1.62%	3.70%	3.15%	-0.5%
High Grade Paper	113	5.1%	1.05	5.2%	138	6.8%	0.85	5.6%	251	5.9%	1.90	5.36%	4.80%	5.95%	1.1%
Mixed Paper	228	10.4%	2.48	12.2%	209	10.3%	1.58	10.4%	437	10.4%	4.05	11.43%	15.60%	10.35%	-5.2%
TOTAL PAPER	713	32.4%	6.68	33.0%	702	34.7%	5.50	36.2%	1,415	33.5%	12.18	34.37%	37.30%	33.51%	-3.8%
Clear Glass	34	1.5%	0.43	2.1%	65	3.2%	0.20	1.3%	99	2.3%	0.63	1.76%	2.60%	2.34%	-0.3%
Brown Glass	20	0.9%	0.40	2.0%	35	1.7%	0.13	0.8%	55	1.3%	0.53	1.48%	1.30%	1.30%	0.0%
Green Glass	17	0.8%	0.35	1.7%	5	0.2%	0.03	0.2%	22	0.5%	0.38	1.06%	0.40%	0.52%	0.1%
Other Glass	9	0.4%	0.33	1.6%	21	1.0%	0.08	0.5%	30	0.7%	0.40	1.13%	0.90%	0.71%	-0.2%
TOTAL GLASS	80	3.6%	1.50	7.4%	126	6.2%	0.43	2.8%	206	4.9%	1.93	5.43%	5.20%	4.88%	-0.3%
Aluminum Cans	31	1.4%	0.70	3.5%	24	1.2%	0.33	2.1%	55	1.3%	1.03	2.89%	1.70%	1.30%	-0.4%
Other Aluminum	6	0.3%	0.33	1.6%	5	0.2%	0.05	0.3%	11	0.3%	0.38	1.06%	0.80%	0.26%	-0.5%
Non Ferrous	5	0.2%	0.30	1.5%	-	0.0%	-	0.0%	5	0.1%	0.30	0.85%	0.30%	0.12%	-0.2%
Food Cans	65	3.0%	0.70	3.5%	68	3.4%	0.40	2.6%	133	3.2%	1.10	3.11%	3.00%	3.15%	0.2%
Ferrous	20	0.9%	0.35	1.7%	13	0.6%	0.05	0.3%	33	0.8%	0.40	1.13%	1.10%	0.78%	-0.3%
Oil filters	-	0.0%	-	0.0%	2	0.1%	0.03	0.2%	2	0.0%	0.03	0.07%	0.00%	0.05%	0.0%
TOTAL METALS	127	5.8%	2.38	11.7%	112	5.5%	0.85	5.6%	239	5.7%	3.23	9.10%	6.90%	5.66%	-1.2%
PET #1	64	2.9%	0.90	4.4%	47	2.3%	0.70	4.6%	111	2.6%	1.60	4.52%	1.80%	2.63%	0.8%
HDPE #2	38	1.7%	0.75	3.7%	41	2.0%	0.60	3.9%	79	1.9%	1.35	3.81%	1.90%	1.87%	0.0%
Plastic Film	61	2.8%	1.10	5.4%	92	4.5%	1.95	12.8%	153	3.6%	3.05	8.61%	3.10%	3.62%	0.5%
Other Plastic	193	8.8%	2.28	11.2%	147	7.3%	1.85	12.2%	340	8.1%	4.13	11.64%	8.30%	8.05%	-0.2%
TOTAL PLASTIC	356	16.2%	5.03	24.8%	327	16.2%	5.10	33.6%	683	16.2%	10.13	28.58%	15.10%	16.18%	1.1%
Food Waste	324	14.7%	1.40	6.9%	347	17.2%	1.08	7.1%	671	15.9%	2.48	6.99%	18.00%	15.89%	-2.1%
Wood Waste	34	1.5%	0.20	1.0%	23	1.1%	0.10	0.7%	57	1.4%	0.30	0.85%	0.90%	1.35%	0.5%
Textiles	119	5.4%	0.75	3.7%	140	6.9%	0.88	5.8%	259	6.1%	1.63	4.59%	5.60%	6.13%	0.5%
Diapers	142	6.5%	0.75	3.7%	76	3.8%	0.33	2.1%	218	5.2%	1.08	3.03%	5.00%	5.16%	0.2%
Other Organics	70	3.2%	0.45	2.2%	71	3.5%	0.50	3.3%	141	3.3%	0.95	2.68%	2.90%	3.34%	0.4%
TOTAL ORGANICS	689	31.3%	3.55	17.6%	657	32.5%	2.88	18.9%	1,346	31.9%	6.43	18.14%	32.40%	31.88%	-0.5%
Fines	31	1.4%	0.18	0.9%	16	0.8%	0.15	1.0%	47	1.1%	0.33	0.92%	1.70%	1.11%	-0.6%
Other Inorganics	182	8.3%	0.83	4.1%	36	1.8%	0.15	1.0%	218	5.2%	0.98	2.75%	1.40%	5.16%	3.8%
TOTAL INORGANICS	213	9.7%	1.00	4.9%	52	2.6%	0.30	2.0%	265	6.3%	1.30	3.67%	3.10%	6.28%	3.2%
HHW	5	0.2%	0.03	0.1%	16	0.8%	0.05	0.3%	21	0.5%	0.08	0.21%	n/a	0.50%	0.5%
Electronic Waste	16	0.7%	0.08	0.4%	31	1.5%	0.10	0.7%	47	1.1%	0.18	0.49%	n/a	1.11%	1.1%
TOTAL SPECIAL WASTE	21	1.0%	0.10	0.5%	47	2.3%	0.15	1.0%	68	1.6%	0.25	0.71%		1.61%	1.6%
TOTAL COMPOSITION	2,199	100%	20.23	100%	2,023	100%	15.20	100%	4,222	100%	35.4	100%	100%	100%	0%

**Table 4.5 - Waste Composition Summary and Comparison Maple Hill (Macon) Landfill
Site to 2006-2007 Overall Average**

	Fall Sort - 10/11-10/12/06				Spring Sort - 6/12-6/13/07				Total 2006-2007 Results for Site				Avg. All Sites	Macon	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	180	8.2%	2.125	10.5%	186	9.2%	2.38	15.6%	366	8.7%	4.50	12.70%	8.20%	8.67%	0.5%
Newsprint	121	5.5%	0.650	3.2%	107	5.3%	0.50	3.3%	228	5.4%	1.15	3.25%	5.17%	5.40%	0.2%
Magazines	71	3.2%	0.375	1.9%	62	3.1%	0.20	1.3%	133	3.2%	0.58	1.62%	3.66%	3.15%	-0.5%
High Grade Paper	113	5.1%	1.050	5.2%	138	6.8%	0.85	5.6%	251	5.9%	1.90	5.36%	6.40%	5.95%	-0.5%
Mixed Paper	228	10.4%	2.475	12.2%	209	10.3%	1.58	10.4%	437	10.4%	4.05	11.43%	10.20%	10.35%	0.1%
TOTAL PAPER	713	32.4%	6.675	33.0%	702	34.7%	5.50	36.2%	1,415	33.5%	12.18	34.37%	33.63%	33.51%	-0.1%
Clear Glass	34	1.5%	0.425	2.1%	65	3.2%	0.20	1.3%	99	2.3%	0.63	1.76%	2.71%	2.34%	-0.4%
Brown Glass	20	0.9%	0.400	2.0%	35	1.7%	0.13	0.8%	55	1.3%	0.53	1.48%	1.77%	1.30%	-0.5%
Green Glass	17	0.8%	0.350	1.7%	5	0.2%	0.03	0.2%	22	0.5%	0.38	1.06%	0.63%	0.52%	-0.1%
Other Glass	9	0.4%	0.325	1.6%	21	1.0%	0.08	0.5%	30	0.7%	0.40	1.13%	0.32%	0.71%	0.4%
TOTAL GLASS	80	3.6%	1.500	7.4%	126	6.2%	0.43	2.8%	206	4.9%	1.93	5.43%	5.44%	4.88%	-0.6%
Aluminum Cans	31	1.4%	0.700	3.5%	24	1.2%	0.33	2.1%	55	1.3%	1.03	2.89%	1.59%	1.30%	-0.3%
Other Aluminum	6	0.3%	0.325	1.6%	5	0.2%	0.05	0.3%	11	0.3%	0.38	1.06%	0.34%	0.26%	-0.1%
Non Ferrous	5	0.2%	0.300	1.5%	-	0.0%	-	0.0%	5	0.1%	0.30	0.85%	0.23%	0.12%	-0.1%
Food Cans	65	3.0%	0.700	3.5%	68	3.4%	0.40	2.6%	133	3.2%	1.10	3.11%	2.93%	3.15%	0.2%
Ferrous	20	0.9%	0.350	1.7%	13	0.6%	0.05	0.3%	33	0.8%	0.40	1.13%	0.87%	0.78%	-0.1%
Oil filters	-	0.0%	-	0.0%	2	0.1%	0.03	0.2%	2	0.0%	0.03	0.07%	0.08%	0.05%	0.0%
TOTAL METALS	127	5.8%	2.375	11.7%	112	5.5%	0.85	5.6%	239	5.7%	3.23	9.10%	6.04%	5.66%	-0.4%
PET #1	64	2.9%	0.900	4.4%	47	2.3%	0.70	4.6%	111	2.6%	1.60	4.52%	2.55%	2.63%	0.1%
HDPE #2	38	1.7%	0.750	3.7%	41	2.0%	0.60	3.9%	79	1.9%	1.35	3.81%	1.90%	1.87%	0.0%
Plastic Film	61	2.8%	1.100	5.4%	92	4.5%	1.95	12.8%	153	3.6%	3.05	8.61%	4.82%	3.62%	-1.2%
Other Plastic	193	8.8%	2.275	11.2%	147	7.3%	1.85	12.2%	340	8.1%	4.13	11.64%	7.99%	8.05%	0.1%
TOTAL PLASTIC	356	16.2%	5.025	24.8%	327	16.2%	5.10	33.6%	683	16.2%	10.13	28.58%	17.25%	16.18%	-1.1%
Food Waste	324	14.7%	1.400	6.9%	347	17.2%	1.08	7.1%	671	15.9%	2.48	6.99%	17.22%	15.89%	-1.3%
Wood Waste	34	1.5%	0.200	1.0%	23	1.1%	0.10	0.7%	57	1.4%	0.30	0.85%	1.19%	1.35%	0.2%
Textiles	119	5.4%	0.750	3.7%	140	6.9%	0.88	5.8%	259	6.1%	1.63	4.59%	4.73%	6.13%	1.4%
Diapers	142	6.5%	0.750	3.7%	76	3.8%	0.33	2.1%	218	5.2%	1.08	3.03%	5.48%	5.16%	-0.3%
Other Organics	70	3.2%	0.450	2.2%	71	3.5%	0.50	3.3%	141	3.3%	0.95	2.68%	2.97%	3.34%	0.4%
TOTAL ORGANICS	689	31.3%	3.550	17.6%	657	32.5%	2.88	18.9%	1,346	31.9%	6.43	18.14%	31.59%	31.88%	0.3%
Fines	31	1.4%	0.175	0.9%	16	0.8%	0.15	1.0%	47	1.1%	0.33	0.92%	0.93%	1.11%	0.2%
Other Inorganics	182	8.3%	0.825	4.1%	36	1.8%	0.15	1.0%	218	5.2%	0.98	2.75%	3.21%	5.16%	2.0%
TOTAL INORGANICS	213	9.7%	1.000	4.9%	52	2.6%	0.30	2.0%	265	6.3%	1.30	3.67%	4.14%	6.28%	2.1%
HHW	5	0.2%	0.025	0.1%	16	0.8%	0.05	0.3%	21	0.5%	0.08	0.21%	0.92%	0.50%	-0.4%
Electronic Waste	16	0.7%	0.075	0.4%	31	1.5%	0.10	0.7%	47	1.1%	0.18	0.49%	0.99%	1.11%	0.1%
TOTAL SPECIAL WASTE	21	1.0%	0.100	0.5%	47	2.3%	0.15	1.0%	68	1.6%	0.25	0.71%	1.91%	1.61%	-0.3%
TOTAL COMPOSITION	2,199	100%	20.2	100%	2,023	100%	15.20	100%	4,222	100%	35.4	100%	100%	100%	0%

Chart 4.3 - Macon Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

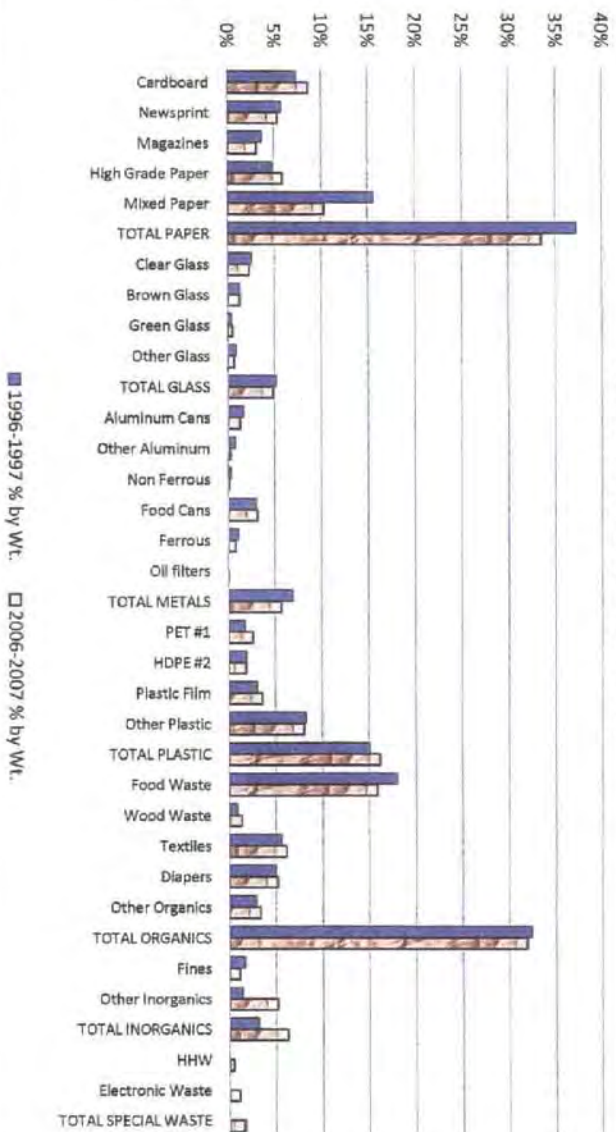


Chart 4.4 - Macon Results 2006-2007 vs. 2006-2007 Sort Average

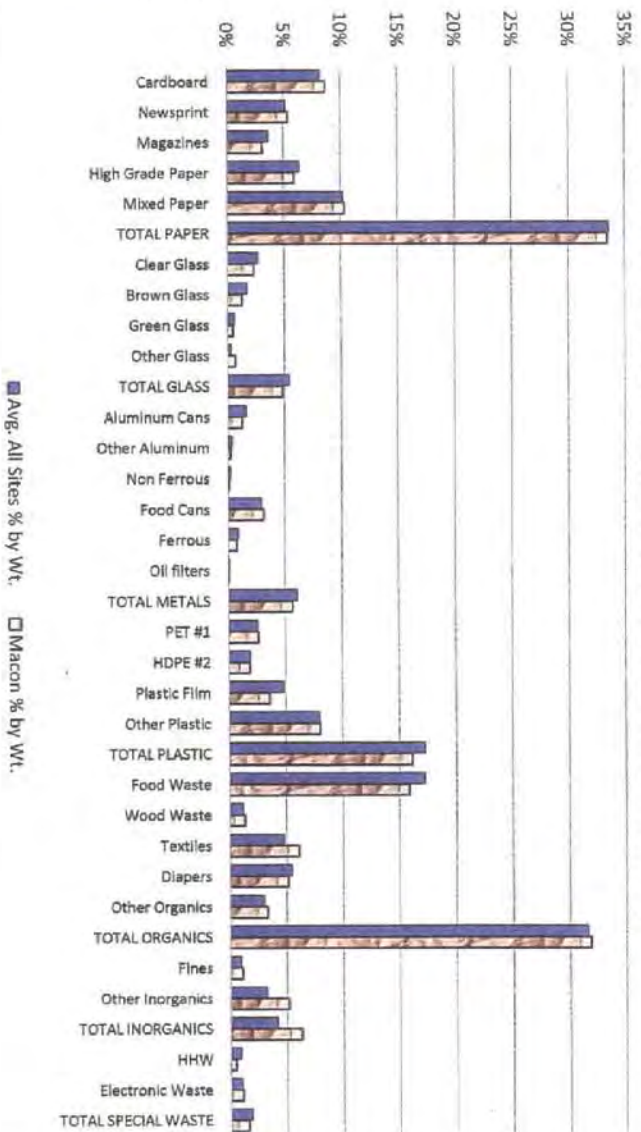


Table 4.6 - Special Waste Sorted at Maple Hill (Macon) Landfill

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)		3
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	2	5
TV, VCR, DVD player, Game Stations, etc.		1
Remote Control or Game Controller		2
Electronic Toy or Game		
Computer Hard Drive		
Computer Monitor		
Computer Keyboard		
Computer Mouse		2
Computer Printer	1	
Toner Cartridge		
Telephone/Answering Machine		2
Cell Phones, Chargers	1	2
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	several	several
Paint, Thinner, etc.	1	2
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	
Oil Filters		
Household Cleaners	1	
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellant Spray, Powder, Poison, etc.		
Over The Counter & Prescription Medicine	several	several
Beauty & Hygiene Products		several
Disposable Razors	several	several
Alkaline Batteries	28	33
Lithium & Other Batteries		
Smoke Alarm		

Weight of Batteries Reported by RBRC

16.7 oz.

26.7 oz.

Appendix 5

Maryville Transfer Station

APPENDIX 5 – MARYVILLE TRANSFER STATION

The city of Maryville operates a transfer station for solid waste bulking and shipment. The transfer station is located on Business 71 on the north side of Maryville in Nodaway County which is part of Solid Waste Management District A.

Demographics:

	<u>Maryville</u>	<u>Nodaway County</u>
Population	10,525	21,912
Number of Households	3,878	8,164
Average Household Size	2.14	2.33
Median Household Income	\$29,043	\$31,781

Solid Waste Collection

A variety of private haulers are in business collecting solid waste in Maryville and the surrounding area. Some private haulers offer curbside recycling collection at incremental costs.

Solid Waste Disposal

The waste received at the Maryville Transfer Station is bulked and hauled to a Hamm Landfill in Prairie, Kansas. The Maryville Transfer Station receives an average of 50 tons per day, and has a current tipping fee of \$50 per ton.

Waste Reduction, Recycling, and Recovery Programs

The city of Maryville residents voted against retaining curbside recycling service shortly after the turn of the century and the city closed its recycling facility. Northwest Missouri State University is located in Maryville and processes fiber recycling collected locally. Drop-off recycling is limited in surrounding areas and there is limited curbside recycling collection available by private haulers throughout the solid waste district.

Maryville operates a mulch and compost facility adjacent to the transfer station.

The solid waste management district offers periodic tire collections as well as household hazardous waste collections.

Maryville Transfer Station Sort Results

Sampling information and composition results are listed in Tables 5.1 through 5.6 and exhibited in Charts 5.1 through 5.4. Comparing Maryville's results to the 1996-1997 WCS results for the site, all categories have increased as a percentage of weight except Organics and Inorganics. By category, the increases are Paper 2.7%, Glass .9%, Metals 1.7%, and Plastic 2.9%. Broken down further, increases in commonly recycled products included in these summarizing categories are as follows: Cardboard 4.1%, Newsprint 1%, Magazines 1.1%, High Grade Paper 5.2%, Aluminum Cans 1.4%, Food Cans 1.4%, and PET #1 Plastics 2%. This information is significant because at the time of the 1996-1997 WCS, the city of Maryville had a mandated curbside recycling program that was discontinued in the early 2000's. Whereas the Northwest Missouri State University continues to operate a progressive recycling and biomass fuel pelletizing program,

it appears the composition of Maryville's waste reflects a negative change due to the elimination of the residential curbside program.

When compared to the overall 2006-2007 sort average, however, the Maryville results are very near the average, with the greatest variances being in Paper (2.5% less) and Organics(2.4% more.) These numbers represent little difference from the rest of the state's composition. Comparing by categories and subcategories to the other sites sampled in 2006-2007, Maryville had the greatest percentage by weight of Textiles(6.64) while having the lowest percentage by weight in Magazines(2.77), Mixed Paper(8.64), Total Paper(31.16) and the lowest percentage by volume of Magazines(1.21).

Table 5.1 - Sample Summary - Maryville Transfer Station

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	253	2.2	90%	10%	Maryville
2	235	2.3	50%	50%	Maryville
3	262	2.4	50%	50%	Rural-east of Maryville
4	208	2.0	50%	50%	NW MO State U & area
5	236	2.3	90%	10%	Maryville
6	246	2.5	90%	10%	Maryville
7	188	1.8	95%	5%	Tarkio/Wilcox area
8	286	2.5	90%	10%	Mound City & rural sw of Maryville
Total Fall	1914	17.8			
Average	239	2.2	76%	24%	
Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	211	1.9	100%	0%	Conception Junction
2	324	2.4	100%	0%	Rural Maryville area
3	193	1.5	70%	30%	Maryville
4	239	2.1	70%	30%	Maryville
5	233	1.8	100%	0%	Maryville
6	272	2.3	80%	20%	Route 136 area
7	359	2.9	90%	10%	Maryville
8	305	2.5	90%	10%	Maryville
Total Spring	2136	17.3			
Average	267	2.2	88%	13%	
Site Total	4050	35.1			
Average	253	2.2	82%	18%	
Estimated Waste (lbs.) Accepted at Site During Sample Periods					300,000

Table 5.2 - Maryville Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	154	19.3	8.0%	2.325	0.291	13.1%
Newsprint	70	8.8	3.7%	0.375	0.047	2.1%
Magazines	68	8.5	3.6%	0.25	0.031	1.4%
High Grade Paper	154	19.3	8.0%	1.775	0.222	10.0%
Mixed Paper	159	19.9	8.3%	1.775	0.222	10.0%
PAPER TOTALS	605	75.6	31.6%	6.5	0.813	36.6%
Clear Glass	44	5.5	2.3%	0.2	0.025	1.1%
Brown Glass	31	3.9	1.6%	0.2	0.025	1.1%
Green Glass	12	1.5	0.6%	0.125	0.016	0.7%
Other Glass	6	0.8	0.3%	0.05	0.006	0.3%
GLASS TOTALS	93	11.6	4.9%	0.575	0.072	3.2%
Aluminum Cans	32	4.0	1.7%	0.4	0.050	2.3%
Other Aluminum	5	0.6	0.3%	0.05	0.006	0.3%
Non Ferrous	12	1.5	0.6%	0.1	0.013	0.6%
Food Cans	75	9.4	3.9%	0.625	0.078	3.5%
Ferrous	27	3.4	1.4%	0.175	0.022	1.0%
Oil filters (one)	2	0.3	0.1%	0.025	0.003	0.1%
METAL TOTALS	153	19.1	8.0%	1.375	0.172	7.7%
PET #1	61	7.6	3.2%	0.85	0.106	4.8%
HDPE #2	39	4.9	2.0%	0.7	0.088	3.9%
Plastic Film	101	12.6	5.3%	1.8	0.225	10.1%
Other Plastic	140	17.5	7.3%	2.125	0.266	12.0%
PLASTIC TOTALS	341	42.6	17.8%	5.475	0.684	30.8%
Food Waste	335	41.9	17.5%	1.475	0.184	8.3%
Wood Waste	17	2.1	0.9%	0.05	0.006	0.3%
Textiles	65	8.1	3.4%	0.425	0.053	2.4%
Diapers	105	13.1	5.5%	0.625	0.078	3.5%
Other Organics	63	7.9	3.3%	0.375	0.047	2.1%
ORGANIC TOTALS	585	73.1	30.6%	2.95	0.369	16.6%
Fines	17	2.1	0.9%	0.1	0.013	0.6%
Other Inorganics	57	7.1	3.0%	0.425	0.053	2.4%
INORGANIC TOTALS	74	9.3	3.9%	0.525	0.066	3.0%
HHW	26	3.3	1.4%	0.2	0.025	1.1%
Electronic Waste	37	4.6	1.9%	0.175	0.022	1.0%
SPECIAL WASTE TOTALS	63	7.9	3.3%	0.375	0.047	2.1%
TOTAL	1914	239.3	100%	17.775	2.222	100%

Table 5.3 - Maryville Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	197	24.6	9.2%	2.75	0.344	15.9%
Newsprint	112	14.0	5.2%	0.65	0.081	3.8%
Magazines	44	5.5	2.1%	0.175	0.022	1.0%
High Grade Paper	113	14.1	5.3%	0.725	0.091	4.2%
Mixed Paper	191	23.9	8.9%	2.225	0.278	12.9%
PAPER TOTALS	657	82.1	30.8%	6.525	0.816	37.7%
Clear Glass	56	7.0	2.6%	0.175	0.022	1.0%
Brown Glass	29	3.6	1.4%	0.125	0.016	0.7%
Green Glass	8	1.0	0.4%	0.025	0.003	0.1%
Other Glass	7	0.9	0.3%	0.025	0.003	0.1%
GLASS TOTALS	100	12.5	4.7%	0.35	0.044	2.0%
Aluminum Cans	48	6.0	2.2%	0.625	0.078	3.6%
Other Aluminum	3	0.4	0.1%	0.025	0.003	0.1%
Non Ferrous	7	0.9	0.3%	0.05	0.006	0.3%
Food Cans	46	5.8	2.2%	0.3	0.038	1.7%
Ferrous	18	2.3	0.8%	0.125	0.016	0.7%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	122	15.3	5.7%	1.125	0.141	6.5%
PET #1	55	6.9	2.6%	0.95	0.119	5.5%
HDPE #2	40	5.0	1.9%	0.875	0.109	5.1%
Plastic Film	79	9.9	3.7%	1.525	0.191	8.8%
Other Plastic	170	21.3	8.0%	2.275	0.284	13.2%
PLASTIC TOTALS	344	43.0	16.1%	5.625	0.703	32.5%
Food Waste	415	51.9	19.4%	1.5	0.188	8.7%
Wood Waste	29	3.6	1.4%	0.2	0.025	1.2%
Textiles	204	25.5	9.6%	0.9	0.113	5.2%
Diapers	75	9.4	3.5%	0.275	0.034	1.6%
Other Organics	69	8.6	3.2%	0.25	0.031	1.4%
ORGANIC TOTALS	792	99.0	37.1%	3.125	0.391	18.1%
Fines	10	1.3	0.5%	0.075	0.009	0.4%
Other Inorganics	58	7.3	2.7%	0.225	0.028	1.3%
INORGANIC TOTALS	68	8.5	3.2%	0.3	0.038	1.7%
HHW	18	2.3	0.8%	0.1	0.013	0.6%
Electronic Waste	35	4.4	1.6%	0.15	0.019	0.9%
SPECIAL WASTE TOTALS	53	6.6	2.5%	0.25	0.031	1.4%
TOTAL	2136	267.0	100%	17.3	2.163	100%

Chart 5.1 - Maryville Results Fall 2006 vs. Spring 2007
Percentage by Weight

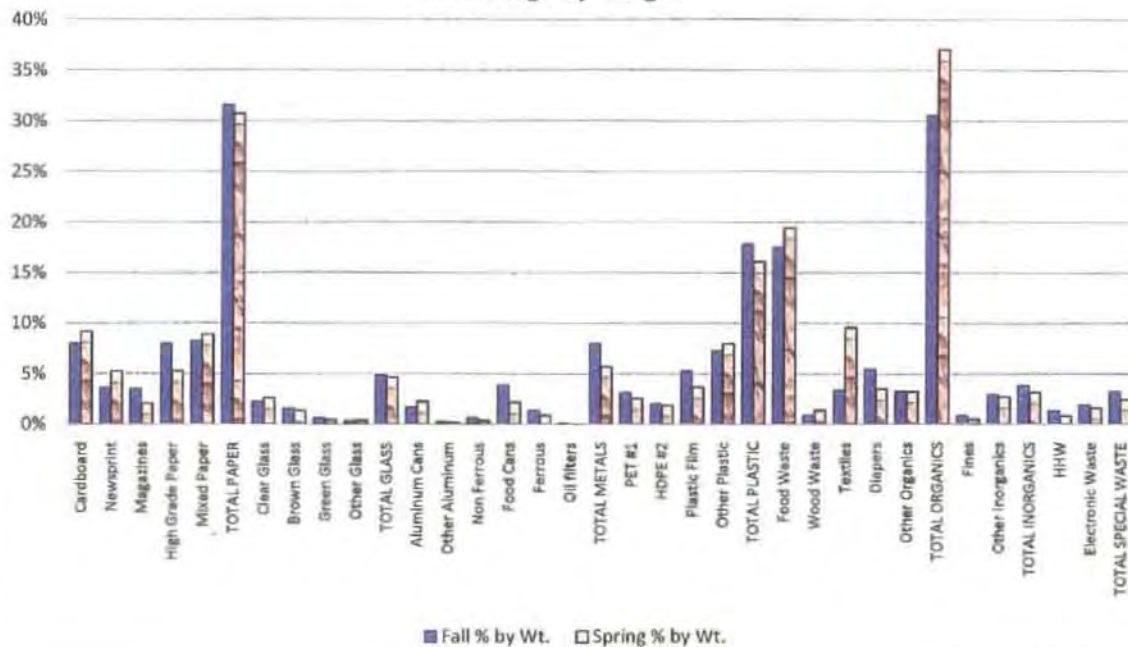
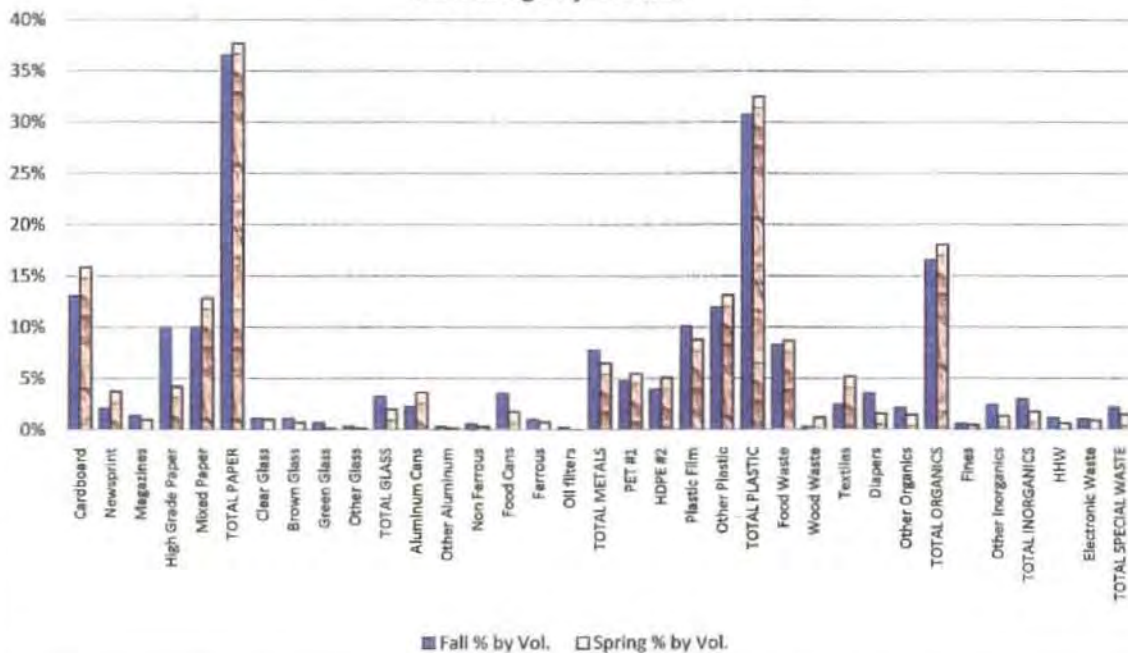


Chart 5.2 - Maryville Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 5.4 - Waste Composition Summary and Comparison
Maryville Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 10/27-10/28/06				Spring Sort - 5/31-6/1/07				Total 2006-2007 Sort Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	154	8.0%	2.33	13.1%	197	9.2%	2.75	15.9%	351	8.7%	5.08	14.47%	4.60%	8.67%	4.1%
Newsprint	70	3.7%	0.38	2.1%	112	5.2%	0.65	3.8%	182	4.5%	1.03	2.92%	3.50%	4.49%	1.0%
Magazines	68	3.6%	0.25	1.4%	44	2.1%	0.18	1.0%	112	2.8%	0.43	1.21%	1.70%	2.77%	1.1%
High Grade Paper	154	8.0%	1.78	10.0%	113	5.3%	0.73	4.2%	267	6.6%	2.50	7.13%	1.40%	6.59%	5.2%
Mixed Paper	159	8.3%	1.78	10.0%	191	8.9%	2.23	12.9%	350	8.6%	4.00	11.40%	17.30%	8.64%	-8.7%
TOTAL PAPER	605	31.6%	6.50	36.6%	657	30.8%	6.53	37.7%	1,262	31.2%	13.03	37.13%	28.50%	31.16%	2.7%
Clear Glass	44	2.3%	0.20	1.1%	56	2.6%	0.18	1.0%	100	2.5%	0.38	1.07%	1.60%	2.47%	0.9%
Brown Glass	31	1.6%	0.20	1.1%	29	1.4%	0.13	0.7%	60	1.5%	0.33	0.93%	1.20%	1.48%	0.3%
Green Glass	12	0.6%	0.13	0.7%	8	0.4%	0.03	0.1%	20	0.5%	0.15	0.43%	0.20%	0.49%	0.3%
Other Glass	6	0.3%	0.05	0.3%	7	0.3%	0.03	0.1%	13	0.3%	0.08	0.21%	0.90%	0.32%	-0.6%
TOTAL GLASS	93	4.9%	0.58	3.2%	100	4.7%	0.35	2.0%	193	4.8%	0.93	2.64%	3.90%	4.77%	0.9%
Aluminum Cans	32	1.7%	0.40	2.3%	48	2.2%	0.63	3.6%	80	2.0%	1.03	2.92%	0.60%	1.98%	1.4%
Other Aluminum	5	0.3%	0.05	0.3%	3	0.1%	0.03	0.1%	8	0.2%	0.08	0.21%	1.10%	0.20%	-0.9%
Non Ferrous	12	0.6%	0.10	0.6%	7	0.3%	0.05	0.3%	19	0.5%	0.15	0.43%	0.30%	0.47%	0.2%
Food Cans	75	3.9%	0.63	3.5%	46	2.2%	0.30	1.7%	121	3.0%	0.93	2.64%	1.60%	2.99%	1.4%
Ferrous	27	1.4%	0.18	1.0%	18	0.8%	0.13	0.7%	45	1.1%	0.30	0.86%	1.40%	1.11%	-0.3%
Oil filters	2	0.1%	0.03	0.1%	-	0.0%	-	0.0%	2	0.0%	0.03	0.07%	0.10%	0.05%	-0.1%
TOTAL METALS	153	8.0%	1.38	7.7%	122	5.7%	1.13	6.5%	275	6.8%	2.50	7.13%	5.10%	6.79%	1.7%
PET #1	61	3.2%	0.85	4.8%	55	2.6%	0.95	5.5%	116	2.9%	1.80	5.13%	0.90%	2.86%	2.0%
HDPE #2	39	2.0%	0.70	3.9%	40	1.9%	0.88	5.1%	79	2.0%	1.58	4.49%	1.30%	1.95%	0.7%
Plastic Film	101	5.3%	1.80	10.1%	79	3.7%	1.53	8.8%	180	4.4%	3.33	9.48%	3.40%	4.44%	1.0%
Other Plastic	140	7.3%	2.13	12.0%	170	8.0%	2.28	13.2%	310	7.7%	4.40	12.54%	8.40%	7.65%	-0.7%
TOTAL PLASTIC	341	17.8%	5.48	30.8%	344	16.1%	5.63	32.5%	685	16.9%	11.10	31.65%	14.00%	16.91%	2.9%
Food Waste	335	17.5%	1.48	8.3%	415	19.4%	1.50	8.7%	750	18.5%	2.98	8.48%	25.40%	18.52%	-6.9%
Wood Waste	17	0.9%	0.05	0.3%	29	1.4%	0.20	1.2%	46	1.1%	0.25	0.71%	0.90%	1.14%	0.2%
Textiles	65	3.4%	0.43	2.4%	204	9.6%	0.90	5.2%	269	6.6%	1.33	3.78%	3.30%	6.64%	3.3%
Diapers	105	5.5%	0.63	3.5%	75	3.5%	0.28	1.6%	180	4.4%	0.90	2.57%	6.60%	4.44%	-2.2%
Other Organics	63	3.3%	0.38	2.1%	69	3.2%	0.25	1.4%	132	3.3%	0.63	1.78%	4.70%	3.26%	-1.4%
TOTAL ORGANICS	585	30.6%	2.95	16.6%	792	37.1%	3.13	18.1%	1,377	34.0%	6.08	17.32%	40.90%	34.00%	-6.9%
Fines	17	0.9%	0.10	0.6%	10	0.5%	0.08	0.4%	27	0.7%	0.18	0.50%	4.50%	0.67%	-3.8%
Other Inorganics	57	3.0%	0.43	2.4%	58	2.7%	0.23	1.3%	115	2.8%	0.65	1.85%	3.00%	2.84%	-0.2%
TOTAL INORGANICS	74	3.9%	0.53	3.0%	68	3.2%	0.30	1.7%	142	3.5%	0.83	2.35%	7.50%	3.51%	-4.0%
HHW	26	1.4%	0.20	1.1%	18	0.8%	0.10	0.6%	44	1.1%	0.30	0.86%	n/a	1.09%	1.1%
Electronic Waste	37	1.9%	0.18	1.0%	35	1.6%	0.15	0.9%	72	1.8%	0.33	0.93%	n/a	1.78%	1.8%
TOTAL SPECIAL WASTE	63	3.3%	0.38	2.1%	53	2.5%	0.25	1.4%	116	2.9%	0.63	1.78%		2.86%	2.9%
TOTAL COMPOSITION	1,914	100%	17.78	100%	2,136	100%	17.30	100%	4,050	100%	35.1	100%	100%	100%	0%

**Table 5.5 - Waste Composition Summary and Comparison Maryville Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 10/27-10/28/06				Spring Sort - 5/31-6/1/07				Total 2006-2007 Results for Site				Avg. All Sites	Maryville	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	154	8.0%	2.33	13.1%	197	9.2%	2.75	15.9%	351	8.7%	5.08	14.47%	8.20%	8.67%	0.5%
Newsprint	70	3.7%	0.38	2.1%	112	5.2%	0.65	3.8%	182	4.5%	1.03	2.92%	5.17%	4.49%	-0.7%
Magazines	68	3.6%	0.25	1.4%	44	2.1%	0.18	1.0%	112	2.8%	0.43	1.21%	3.66%	2.77%	-0.9%
High Grade Paper	154	8.0%	1.78	10.0%	113	5.3%	0.73	4.2%	267	6.6%	2.50	7.13%	6.40%	6.59%	0.2%
Mixed Paper	159	8.3%	1.78	10.0%	191	8.9%	2.23	12.9%	350	8.6%	4.00	11.40%	10.20%	8.64%	-1.6%
TOTAL PAPER	605	31.6%	6.50	36.6%	657	30.8%	6.53	37.7%	1,262	31.2%	13.03	37.13%	33.63%	31.16%	-2.5%
Clear Glass	44	2.3%	0.20	1.1%	56	2.6%	0.18	1.0%	100	2.5%	0.38	1.07%	2.71%	2.47%	-0.2%
Brown Glass	31	1.6%	0.20	1.1%	29	1.4%	0.13	0.7%	60	1.5%	0.33	0.93%	1.77%	1.48%	-0.3%
Green Glass	12	0.6%	0.13	0.7%	8	0.4%	0.03	0.1%	20	0.5%	0.15	0.43%	0.83%	0.49%	-0.1%
Other Glass	6	0.3%	0.05	0.3%	7	0.3%	0.03	0.1%	13	0.3%	0.08	0.21%	0.32%	0.32%	0.0%
TOTAL GLASS	93	4.9%	0.58	3.2%	100	4.7%	0.35	2.0%	193	4.8%	0.93	2.64%	5.44%	4.77%	-0.7%
Aluminum Cans	32	1.7%	0.40	2.3%	48	2.2%	0.63	3.6%	80	2.0%	1.03	2.92%	1.59%	1.98%	0.4%
Other Aluminum	5	0.3%	0.05	0.3%	3	0.1%	0.03	0.1%	8	0.2%	0.08	0.21%	0.34%	0.20%	-0.1%
Non Ferrous	12	0.6%	0.10	0.6%	7	0.3%	0.05	0.3%	19	0.5%	0.15	0.43%	0.23%	0.47%	0.2%
Food Cans	75	3.9%	0.63	3.5%	46	2.2%	0.30	1.7%	121	3.0%	0.93	2.64%	2.93%	2.99%	0.1%
Ferrous	27	1.4%	0.18	1.0%	18	0.8%	0.13	0.7%	45	1.1%	0.30	0.86%	0.87%	1.11%	0.2%
Oil filters	2	0.1%	0.03	0.1%	-	0.0%	-	0.0%	2	0.0%	0.03	0.07%	0.08%	0.05%	0.0%
TOTAL METALS	153	8.0%	1.38	7.7%	122	5.7%	1.13	6.5%	275	6.8%	2.50	7.13%	6.04%	6.79%	0.8%
PET #1	61	3.2%	0.85	4.8%	55	2.6%	0.95	5.5%	116	2.9%	1.80	5.13%	2.55%	2.86%	0.3%
HDPE #2	39	2.0%	0.70	3.9%	40	1.9%	0.88	5.1%	79	2.0%	1.58	4.49%	1.90%	1.95%	0.1%
Plastic Film	101	5.3%	1.80	10.1%	79	3.7%	1.53	8.8%	180	4.4%	3.33	9.48%	4.82%	4.44%	-0.4%
Other Plastic	140	7.3%	2.13	12.0%	170	8.0%	2.28	13.2%	310	7.7%	4.40	12.54%	7.99%	7.65%	-0.3%
TOTAL PLASTIC	341	17.8%	5.48	30.8%	344	16.1%	5.63	32.5%	685	16.9%	11.10	31.65%	17.25%	16.91%	-0.3%
Food Waste	335	17.5%	1.48	8.3%	415	19.4%	1.50	8.7%	750	18.5%	2.98	8.48%	17.22%	18.52%	1.3%
Wood Waste	17	0.9%	0.05	0.3%	29	1.4%	0.20	1.2%	46	1.1%	0.25	0.71%	1.19%	1.14%	-0.1%
Textiles	65	3.4%	0.43	2.4%	204	9.6%	0.90	5.2%	269	6.6%	1.33	3.78%	4.73%	6.64%	1.9%
Diapers	105	5.5%	0.63	3.5%	75	3.5%	0.28	1.6%	180	4.4%	0.90	2.57%	5.48%	4.44%	-1.0%
Other Organics	63	3.3%	0.38	2.1%	69	3.2%	0.25	1.4%	132	3.3%	0.63	1.78%	2.97%	3.26%	0.3%
TOTAL ORGANICS	585	30.6%	2.95	16.6%	792	37.1%	3.13	18.1%	1,377	34.0%	6.08	17.32%	31.59%	34.00%	2.4%
Fines	17	0.9%	0.10	0.6%	10	0.5%	0.08	0.4%	27	0.7%	0.18	0.50%	0.93%	0.67%	-0.3%
Other Inorganics	57	3.0%	0.43	2.4%	58	2.7%	0.23	1.3%	115	2.8%	0.65	1.85%	3.21%	2.84%	-0.4%
TOTAL INORGANICS	74	3.9%	0.53	3.0%	68	3.2%	0.30	1.7%	142	3.5%	0.83	2.35%	4.14%	3.51%	-0.6%
HHW	26	1.4%	0.20	1.1%	18	0.8%	0.10	0.6%	44	1.1%	0.30	0.86%	0.92%	1.09%	0.2%
Electronic Waste	37	1.9%	0.18	1.0%	35	1.6%	0.15	0.9%	72	1.8%	0.33	0.93%	0.99%	1.78%	0.8%
TOTAL SPECIAL WASTE	63	3.3%	0.38	2.1%	53	2.5%	0.25	1.4%	116	2.9%	0.63	1.78%	1.91%	2.86%	1.0%
TOTAL COMPOSITION	1,914	100%	17.8	100%	2,136	100%	17.30	100%	4,050	100%	35.1	100%	100%	100%	0%

Chart 5.3 - Maryville Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

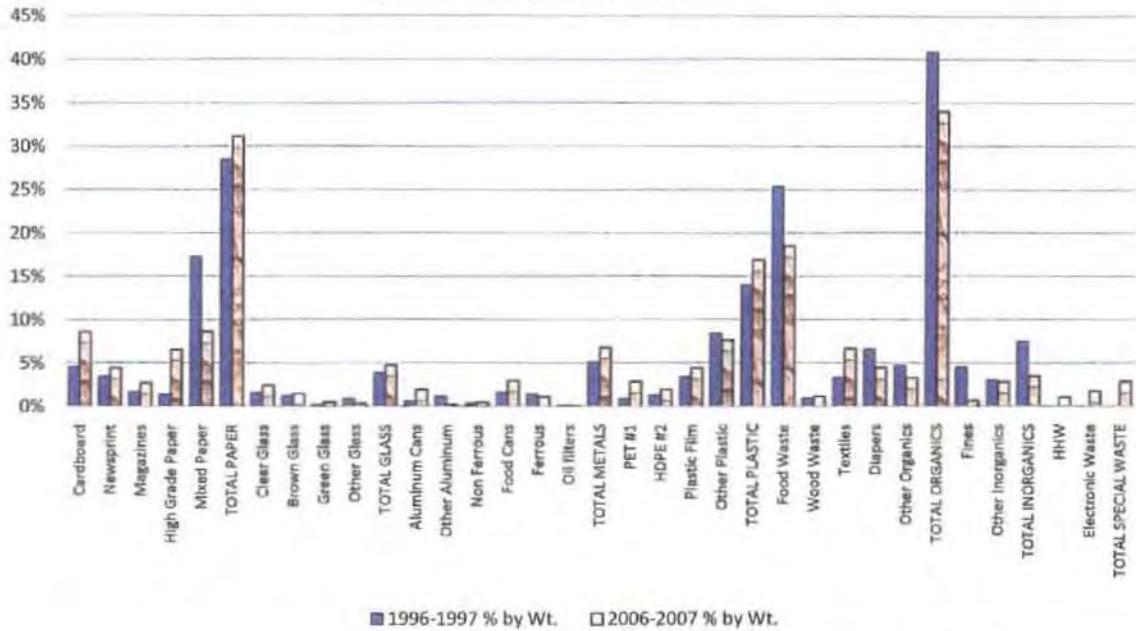


Chart 5.4 - Maryville Results 2006-2007 vs. 2006-2007 Sort Average

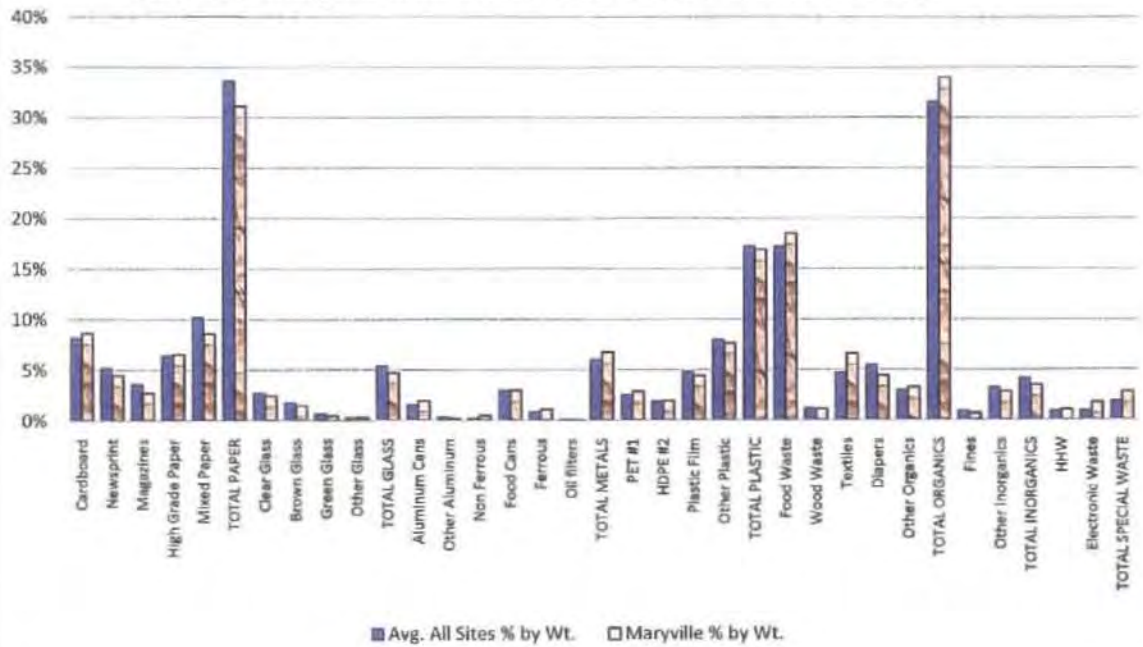


Table 5.6 - Special Waste Sorted at Maryville Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)	1	3
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	3	
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller		1
Electronic Toy or Game	4	
Computer Hard Drive	1	1
Computer Monitor		
Computer Keyboard		1
Computer Mouse		1
Computer Printer	1	
Toner Cartridge		1
Telephone/Answering Machine		
Cell Phones, Chargers	1	2
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	16	
Paint, Thinner, etc.	2	2
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	1
Oil Filters		
Household Cleaners	5	
Yard & Garden Spray, Powder, etc.	1	
Insect & Animal Repellant Spray, Powder, Poison, etc.	2	1
Over The Counter & Prescription Medicine	46	a few
Beauty & Hygiene Products		3
Disposable Razors	12	
Alkaline Batteries	13	32
Lithium & Other Batteries		
Smoke Alarm		

Weight of Batteries Reported by RBRC

33 oz.

31.5 oz.

Appendix 6

O'Fallon Transfer Station

APPENDIX 6 – O’FALLON TRANSFER STATION

The O’Fallon Transfer Station is owned and operated by the city of O’Fallon. It is located just north of I-70 near Exit 216 in O’Fallon which is located in St. Charles County, part of Solid Waste Management District L.

Demographics:

	<u>O’Fallon</u>	<u>St. Charles County</u>
Population	45,888	283,883
Number of Households	15,369	101,826
Average Household Size	2.96	2.76
Median Household Income	\$60,179	\$57,258

Solid Waste Collection

Solid Waste Collection in the O’Fallon area is primarily provided by the city of O’Fallon. The city also collects curbside recycling then bulks it for transfer to a material recovery facility.

Solid Waste Disposal

The Transfer Station processes approximately 130 tons per day. Most of the waste is brought in by city of O’Fallon collection vehicles, but also from private haulers and individuals. The public tipping fee is \$32.50 per ton. The material is bulked and transported to the Fred Weber Landfill.

Waste Reduction, Recycling, and Recovery Programs

Various recycling opportunities are available to the residents of St. Charles County. Most of the communities have curbside recycling. Drop-off recycling is available to St. Charles County residents in various locations as well.

O’Fallon Transfer Station Sort Results

Sampling information and composition results are listed in Tables 6.1 through 6.6 and exhibited in Charts 6.1 through 6.4. Nothing extraordinary was noted by the sorters during the O’Fallon sort except “very few milk jugs.” When comparing the O’Fallon 2006-2007 sort results with the 1996-1997 WCS, the categories with the most change were Papers (4.4% less) and Organics (4.9% more).

Compared to the overall 2006-2007 sort average, O’Fallon’s greatest variance was in the Organics and Plastic categories with 4.5% more and 2.9% less, respectively. Relating O’Fallon’s category and subcategory results with the other sites sampled in 2006-2007, O’Fallon experienced the highest percentage by weight of Other Organics(7.28) and Total Organics(36.05) and the highest percentage by volume of PET #1 Plastic(6.23) and Other Organics(4.09) while having the lowest percentage by weight of Cardboard(6.77), Clear Glass(2.07), Total Metals(4.58), HDPE #2 Plastic(1.28), Plastic Film(3.24), Total Plastic(14.3) and Electronic Waste(.29%) as well as having the lowest percentage by volume in HDPE #2 Plastic(2.7), and Plastic Film(7.81).

Table 6.1 - Sample Summary - O'Fallon Transfer Station

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	180	1.3	100%	0%	City of O'Fallon
2	178	1.7	100%	0%	City of O'Fallon
3	168	1.7	100%	0%	City of O'Fallon
4	187	1.6	100%	0%	City of O'Fallon
5	177	1.6	100%	0%	City of O'Fallon
6	158	1.0	100%	0%	City of O'Fallon
7	179	1.3	100%	0%	City of O'Fallon
8	266	2.2	100%	0%	City of O'Fallon
Total Fall	1493	12.3			
Average	187	1.5	100%	0%	
Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	282	2.0	100%	0%	City of O'Fallon
2	259	2.2	100%	0%	City of O'Fallon
3	232	1.8	100%	0%	City of O'Fallon
4	253	1.7	100%	0%	City of O'Fallon
5	189	1.5	100%	0%	City of O'Fallon
6	197	1.3	100%	0%	City of O'Fallon
7	259	1.9	100%	0%	Lake St. Louis
8	262	1.9	100%	0%	City of O'Fallon
Total Spring	1933	14.4			
Average	242	1.8	100%	0%	
Site Total	3426	26.6			
Average	214	1.7	100%	0%	
Estimated Waste (lbs.) Accepted at Site During Sample Periods					780,000

Table 6.2 - O'Fallon Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	98	12.3	6.6%	1.625	0.203	13.3%
Newsprint	91	11.4	6.1%	0.6	0.075	4.9%
Magazines	67	8.4	4.5%	0.2	0.025	1.6%
High Grade Paper	97	12.1	6.5%	0.8	0.100	6.5%
Mixed Paper	172	21.5	11.5%	1.65	0.206	13.5%
PAPER TOTALS	525	65.6	35.2%	4.875	0.609	39.8%
Clear Glass	38	4.8	2.5%	0.125	0.016	1.0%
Brown Glass	14	1.8	0.9%	0.1	0.013	0.8%
Green Glass	10	1.3	0.7%	0.075	0.009	0.6%
Other Glass	6	0.8	0.4%	0.05	0.006	0.4%
GLASS TOTALS	68	8.5	4.6%	0.35	0.044	2.9%
Aluminum Cans	15	1.9	1.0%	0.25	0.031	2.0%
Other Aluminum	2	0.3	0.1%	0.05	0.006	0.4%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	23	2.9	1.5%	0.2	0.025	1.6%
Ferrous	8	1.0	0.5%	0.075	0.009	0.6%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	48	6.0	3.2%	0.575	0.072	4.7%
PET #1	36	4.5	2.4%	0.75	0.094	6.1%
HDPE #2	13	1.6	0.9%	0.275	0.034	2.2%
Plastic Film	35	4.4	2.3%	0.75	0.094	6.1%
Other Plastic	124	15.5	8.3%	1.975	0.247	16.1%
PLASTIC TOTALS	208	26.0	13.9%	3.75	0.469	30.6%
Food Waste	288	36.0	19.3%	1.1	0.138	9.0%
Wood Waste	13	1.6	0.9%	0.075	0.009	0.6%
Textiles	43	5.4	2.9%	0.35	0.044	2.9%
Diapers	91	11.4	6.1%	0.375	0.047	3.1%
Other Organics	132	16.5	8.8%	0.675	0.084	5.5%
ORGANIC TOTALS	567	70.9	38.0%	2.575	0.322	21.0%
Fines	18	2.3	1.2%	0.125	0.016	1.0%
Other Inorganics	44	5.5	2.9%	0.125	0.016	1.0%
INORGANIC TOTALS	62	7.8	4.2%	0.25	0.031	2.0%
HHW	11	1.4	0.7%	0.025	0.003	0.2%
Electronic Waste	4	0.5	0.3%	0.025	0.003	0.2%
SPECIAL WASTE TOTALS	15	1.9	1.0%	0.05	0.006	0.4%
TOTAL	1493	186.6	100%	12.25	1.531	100%

Table 6.3 - O'Fallon Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	134	16.8	6.9%	1.925	0.241	13.2%
Newsprint	111	13.9	5.7%	0.525	0.066	3.6%
Magazines	75	9.4	3.9%	0.25	0.031	1.7%
High Grade Paper	126	15.8	6.5%	0.95	0.119	6.5%
Mixed Paper	184	23.0	9.5%	1.75	0.219	12.0%
PAPER TOTALS	630	78.8	32.6%	5.4	0.675	37.1%
Clear Glass	33	4.1	1.7%	0.2	0.025	1.4%
Brown Glass	41	5.1	2.1%	0.2	0.025	1.4%
Green Glass	19	2.4	1.0%	0.15	0.019	1.0%
Other Glass	8	1.0	0.4%	0.1	0.013	0.7%
GLASS TOTALS	101	12.6	5.2%	0.65	0.081	4.5%
Aluminum Cans	31	3.9	1.6%	0.4	0.050	2.7%
Other Aluminum	10	1.3	0.5%	0.125	0.016	0.9%
Non Ferrous	4	0.5	0.2%	0.05	0.006	0.3%
Food Cans	53	6.6	2.7%	0.275	0.034	1.9%
Ferrous	11	1.4	0.6%	0.125	0.016	0.9%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	109	13.6	5.6%	0.975	0.122	6.7%
PET #1	49	6.1	2.5%	0.925	0.116	6.4%
HDPE #2	31	3.9	1.6%	0.45	0.056	3.1%
Plastic Film	76	9.5	3.9%	1.35	0.169	9.3%
Other Plastic	126	15.8	6.5%	1.7	0.213	11.7%
PLASTIC TOTALS	282	35.3	14.6%	4.425	0.553	30.4%
Food Waste	327	40.9	16.9%	1.075	0.134	7.4%
Wood Waste	23	2.9	1.2%	0.075	0.009	0.5%
Textiles	81	10.1	4.2%	0.4	0.050	2.7%
Diapers	116	14.5	6.0%	0.475	0.059	3.3%
Other Organics	121	15.1	6.3%	0.425	0.053	2.9%
ORGANIC TOTALS	668	83.5	34.6%	2.45	0.306	16.8%
Fines	22	2.8	1.1%	0.2	0.025	1.4%
Other Inorganics	98	12.3	5.1%	0.3	0.038	2.1%
INORGANIC TOTALS	120	15.0	6.2%	0.5	0.063	3.4%
HHW	17	2.1	0.9%	0.1	0.013	0.7%
Electronic Waste	6	0.8	0.3%	0.05	0.006	0.3%
SPECIAL WASTE TOTALS	23	2.9	1.2%	0.15	0.019	1.0%
TOTAL	1933	241.6	100%	14.55	1.819	100%

Chart 6.1- O'Fallon Results Fall 2006 vs. Spring 2007
Percentage by Weight

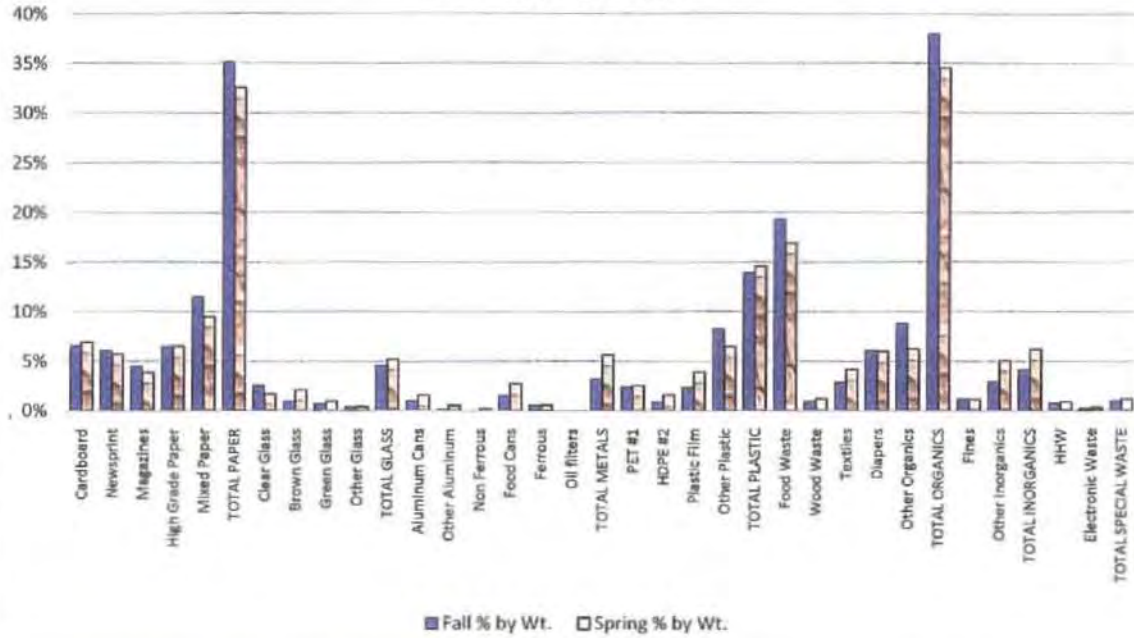
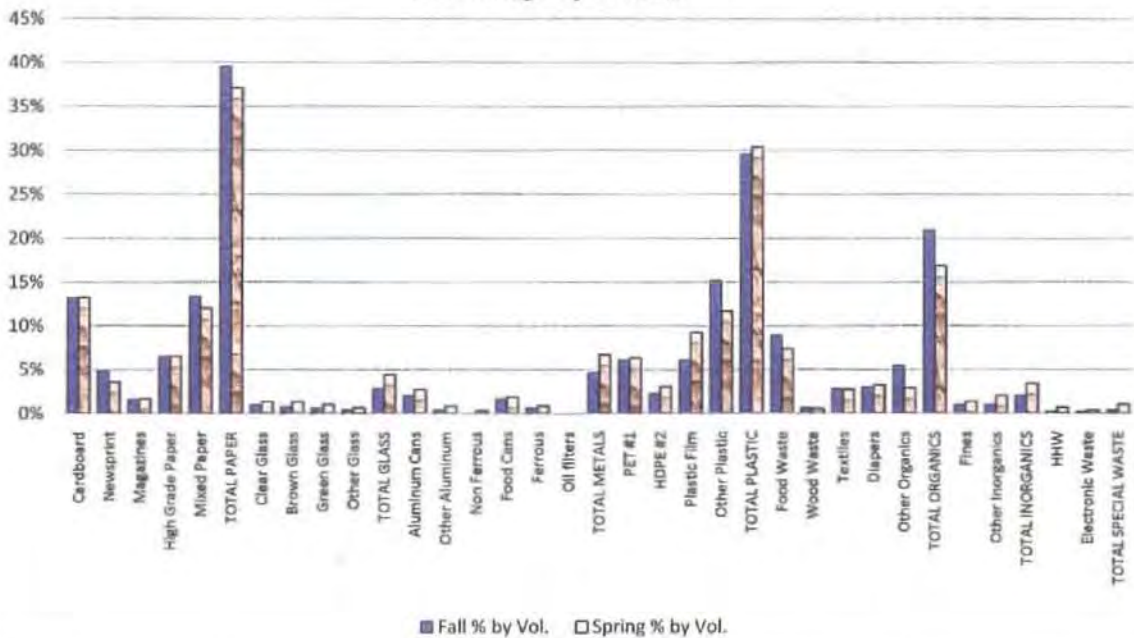


Chart 6.2 - O'Fallon Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 6.4 - Waste Composition Summary and Comparison
City of O'Fallon Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 10/5-10/6/06				Spring Sort - 5/21-5/22/07				Total 2006-2007 Sort Results				*1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	98	6.6%	1.625	13.2%	134	6.9%	1.93	13.2%	232	6.77%	3.55	13.21%	7.10%	6.77%	-0.3%
Newsprint	91	6.1%	0.600	4.9%	111	5.7%	0.53	3.6%	202	5.90%	1.13	4.19%	10.00%	5.90%	-4.1%
Magazines	67	4.5%	0.200	1.6%	75	3.9%	0.25	1.7%	142	4.14%	0.45	1.67%	4.00%	4.14%	0.1%
High Grade Paper	97	6.5%	0.800	6.5%	126	6.5%	0.95	6.5%	223	6.51%	1.75	6.51%	3.80%	6.51%	2.7%
Mixed Paper	172	11.5%	1.650	13.4%	184	9.5%	1.75	12.0%	356	10.39%	3.40	12.65%	13.20%	10.39%	-2.8%
TOTAL PAPER	525	35.2%	4.875	39.6%	630	32.6%	5.40	37.1%	1,155	33.71%	10.28	38.23%	38.10%	33.71%	-4.4%
Clear Glass	38	2.5%	0.125	1.0%	33	1.7%	0.20	1.4%	71	2.07%	0.33	1.21%	3.00%	2.07%	-0.9%
Brown Glass	14	0.9%	0.100	0.8%	41	2.1%	0.20	1.4%	55	1.61%	0.30	1.12%	1.40%	1.61%	0.2%
Green Glass	10	0.7%	0.075	0.6%	19	1.0%	0.15	1.0%	29	0.85%	0.23	0.84%	0.80%	0.85%	0.0%
Other Glass	6	0.4%	0.050	0.4%	8	0.4%	0.10	0.7%	14	0.41%	0.15	0.56%	0.50%	0.41%	-0.1%
TOTAL GLASS	68	4.6%	0.350	2.8%	101	5.2%	0.65	4.5%	169	4.93%	1.00	3.72%	5.70%	4.93%	-0.8%
Aluminum Cans	15	1.0%	0.250	2.0%	31	1.6%	0.40	2.7%	46	1.34%	0.65	2.42%	1.60%	1.34%	-0.3%
Other Aluminum	2	0.1%	0.050	0.4%	10	0.5%	0.13	0.9%	12	0.35%	0.18	0.65%	0.80%	0.35%	-0.4%
Non Ferrous	-	0.0%	-	0.0%	4	0.2%	0.05	0.3%	4	0.12%	0.05	0.19%	0.20%	0.12%	-0.1%
Food Cans	23	1.5%	0.200	1.6%	53	2.7%	0.28	1.9%	76	2.22%	0.48	1.77%	2.50%	2.22%	-0.3%
Ferrous	8	0.5%	0.075	0.6%	11	0.6%	0.13	0.9%	19	0.55%	0.20	0.74%	1.00%	0.55%	-0.4%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.20%	0.00%	-0.2%
TOTAL METALS	48	3.2%	0.575	4.7%	109	5.6%	0.98	6.7%	157	4.58%	1.55	5.77%	6.30%	4.58%	-1.7%
PET #1	36	2.4%	0.750	6.1%	49	2.5%	0.93	6.4%	85	2.48%	1.68	6.23%	1.70%	2.48%	0.8%
HDPE #2	13	0.9%	0.275	2.2%	31	1.6%	0.45	3.1%	44	1.28%	0.73	2.70%	2.00%	1.28%	-0.7%
Plastic Film	35	2.3%	0.750	6.1%	76	3.9%	1.35	9.3%	111	3.24%	2.10	7.81%	3.50%	3.24%	-0.3%
Other Plastic	124	8.3%	1.875	15.2%	126	6.5%	1.70	11.7%	250	7.30%	3.58	13.30%	7.30%	7.30%	0.0%
TOTAL PLASTIC	208	13.9%	3.650	29.6%	282	14.6%	4.43	30.4%	490	14.30%	8.08	30.05%	14.50%	14.30%	-0.2%
Food Waste	288	19.3%	1.100	8.9%	327	16.9%	1.08	7.4%	615	17.95%	2.18	8.09%	17.80%	17.95%	0.2%
Wood Waste	13	0.9%	0.075	0.6%	23	1.2%	0.08	0.5%	36	1.05%	0.15	0.56%	0.60%	1.05%	0.5%
Textiles	43	2.9%	0.350	2.8%	81	4.2%	0.40	2.7%	124	3.62%	0.75	2.79%	6.10%	3.62%	-2.5%
Diapers	91	6.1%	0.375	3.0%	116	6.0%	0.48	3.3%	207	6.04%	0.85	3.16%	4.00%	6.04%	2.0%
Other Organics	132	8.8%	0.675	5.5%	121	6.3%	0.43	2.9%	253	7.38%	1.10	4.09%	2.60%	7.38%	4.8%
TOTAL ORGANICS	567	38.0%	2.575	20.9%	668	34.6%	2.45	16.8%	1,235	36.05%	5.03	18.70%	31.10%	36.05%	4.9%
Fines	18	1.2%	0.125	1.0%	22	1.1%	0.20	1.4%	40	1.17%	0.33	1.21%	2.50%	1.17%	-1.3%
Other Inorganics	44	2.9%	0.125	1.0%	98	5.1%	0.30	2.1%	142	4.14%	0.43	1.58%	1.40%	4.14%	2.7%
TOTAL INORGANICS	62	4.2%	0.250	2.0%	120	6.2%	0.50	3.4%	182	5.31%	0.75	2.79%	3.90%	5.31%	1.4%
HHW	11	0.7%	0.025	0.2%	17	0.9%	0.10	0.7%	28	0.82%	0.13	0.47%	n/a	0.82%	0.8%
Electronic Waste	4	0.3%	0.025	0.2%	6	0.3%	0.05	0.3%	10	0.29%	0.08	0.28%	n/a	0.29%	0.3%
TOTAL SPECIAL WASTE	15	1.0%	0.050	0.4%	23	1.2%	0.15	1.0%	38	1.11%	0.20	0.74%		1.11%	1.1%
TOTAL COMPOSITION	1,493	100%	12.3	100.0%	1,933	100%	14.55	100%	3,426	100%	26.9	100%	100%	100%	0%

* The 1996 Waste Composition Study was conducted at the Waste Management Transfer Station in Foristell

**Table 6.5 - Waste Composition Summary and Comparison O'Fallon Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 10/5-10/6/06				Spring Sort - 5/21-5/22/07				Total 2006-2007 Results for Site				Avg. All Sites	O'Fallon	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	98	6.6%	1.63	13%	134	6.9%	1.93	13.2%	232	6.77%	3.55	13.21%	8.20%	6.77%	-1.4%
Newsprint	91	6.1%	0.60	5%	111	5.7%	0.53	3.6%	202	5.90%	1.13	4.19%	5.17%	5.90%	0.7%
Magazines	67	4.5%	0.20	2%	75	3.9%	0.25	1.7%	142	4.14%	0.45	1.67%	3.66%	4.14%	0.5%
High Grade Paper	97	6.5%	0.80	6%	126	6.5%	0.95	6.5%	223	6.51%	1.75	6.51%	6.40%	6.51%	0.1%
Mixed Paper	172	11.5%	1.65	13%	184	9.5%	1.75	12.0%	356	10.39%	3.40	12.65%	10.20%	10.39%	0.2%
TOTAL PAPER	525	35.2%	4.88	40%	630	32.6%	5.40	37.1%	1,155	33.71%	10.28	38.23%	33.63%	33.71%	0.1%
Clear Glass	38	2.5%	0.13	1%	33	1.7%	0.20	1.4%	71	2.07%	0.33	1.21%	2.71%	2.07%	-0.6%
Brown Glass	14	0.9%	0.10	1%	41	2.1%	0.20	1.4%	55	1.61%	0.30	1.12%	1.77%	1.61%	-0.2%
Green Glass	10	0.7%	0.08	1%	19	1.0%	0.15	1.0%	29	0.85%	0.23	0.84%	0.63%	0.85%	0.2%
Other Glass	6	0.4%	0.05	0%	8	0.4%	0.10	0.7%	14	0.41%	0.15	0.56%	0.32%	0.41%	0.1%
TOTAL GLASS	68	4.6%	0.35	3%	101	5.2%	0.65	4.5%	169	4.93%	1.00	3.72%	5.44%	4.93%	-0.5%
Aluminum Cans	15	1.0%	0.25	2%	31	1.6%	0.40	2.7%	46	1.34%	0.65	2.42%	1.59%	1.34%	-0.2%
Other Aluminum	2	0.1%	0.05	0%	10	0.5%	0.13	0.9%	12	0.35%	0.18	0.65%	0.34%	0.35%	0.0%
Non Ferrous	-	0.0%	-	0%	4	0.2%	0.05	0.3%	4	0.12%	0.05	0.19%	0.23%	0.12%	-0.1%
Food Cans	23	1.5%	0.20	2%	53	2.7%	0.28	1.9%	76	2.22%	0.48	1.77%	2.93%	2.22%	-0.7%
Ferrous	8	0.5%	0.08	1%	11	0.6%	0.13	0.9%	19	0.55%	0.20	0.74%	0.87%	0.55%	-0.3%
Oil filters	-	0.0%	-	0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.08%	0.00%	-0.1%
TOTAL METALS	48	3.2%	0.58	5%	109	5.6%	0.98	6.7%	157	4.58%	1.55	5.77%	6.04%	4.58%	-1.5%
PET #1	36	2.4%	0.75	6%	49	2.5%	0.93	6.4%	85	2.48%	1.68	6.23%	2.55%	2.48%	-0.1%
HDPE #2	13	0.9%	0.28	2%	31	1.6%	0.45	3.1%	44	1.28%	0.73	2.70%	1.90%	1.28%	-0.6%
Plastic Film	35	2.3%	0.75	6%	76	3.9%	1.35	9.3%	111	3.24%	2.10	7.81%	4.82%	3.24%	-1.6%
Other Plastic	124	8.3%	1.88	15%	126	6.5%	1.70	11.7%	250	7.30%	3.58	13.30%	7.99%	7.30%	-0.7%
TOTAL PLASTIC	208	13.9%	3.65	30%	282	14.6%	4.43	30.4%	490	14.30%	8.08	30.05%	17.25%	14.30%	-2.9%
Food Waste	288	19.3%	1.10	9%	327	16.9%	1.08	7.4%	615	17.95%	2.18	8.09%	17.22%	17.95%	0.7%
Wood Waste	13	0.9%	0.08	1%	23	1.2%	0.08	0.5%	36	1.05%	0.15	0.56%	1.19%	1.05%	-0.1%
Textiles	43	2.9%	0.35	3%	81	4.2%	0.40	2.7%	124	3.62%	0.75	2.79%	4.73%	3.62%	-1.1%
Diapers	91	6.1%	0.38	3%	116	6.0%	0.48	3.3%	207	6.04%	0.85	3.16%	5.48%	6.04%	0.6%
Other Organics	132	8.8%	0.68	5%	121	6.3%	0.43	2.9%	253	7.38%	1.10	4.09%	2.97%	7.38%	4.4%
TOTAL ORGANICS	567	38.0%	2.58	21%	668	34.6%	2.45	16.8%	1,235	36.05%	5.03	18.70%	31.59%	36.05%	4.5%
Fines	18	1.2%	0.13	1%	22	1.1%	0.20	1.4%	40	1.17%	0.33	1.21%	0.93%	1.17%	0.2%
Other Inorganics	44	2.9%	0.13	1%	98	5.1%	0.30	2.1%	142	4.14%	0.43	1.58%	3.21%	4.14%	0.9%
TOTAL INORGANICS	62	4.2%	0.25	2%	120	6.2%	0.50	3.4%	182	5.31%	0.75	2.79%	4.14%	5.31%	1.2%
HHW	11	0.7%	0.03	0%	17	0.9%	0.10	0.7%	28	0.82%	0.13	0.47%	0.92%	0.82%	0.8%
Electronic Waste	4	0.3%	0.03	0%	6	0.3%	0.05	0.3%	10	0.29%	0.08	0.28%	0.99%	0.29%	0.3%
TOTAL SPECIAL WASTE	15	1.0%	0.05	0%	23	1.2%	0.15	1.0%	38	1.11%	0.20	0.74%	1.91%	1.11%	-0.8%
TOTAL COMPOSITION	1,493	100%	12.3	100%	1,933	100%	14.55	100%	3,426	100%	26.9	100%	100%	100%	0%

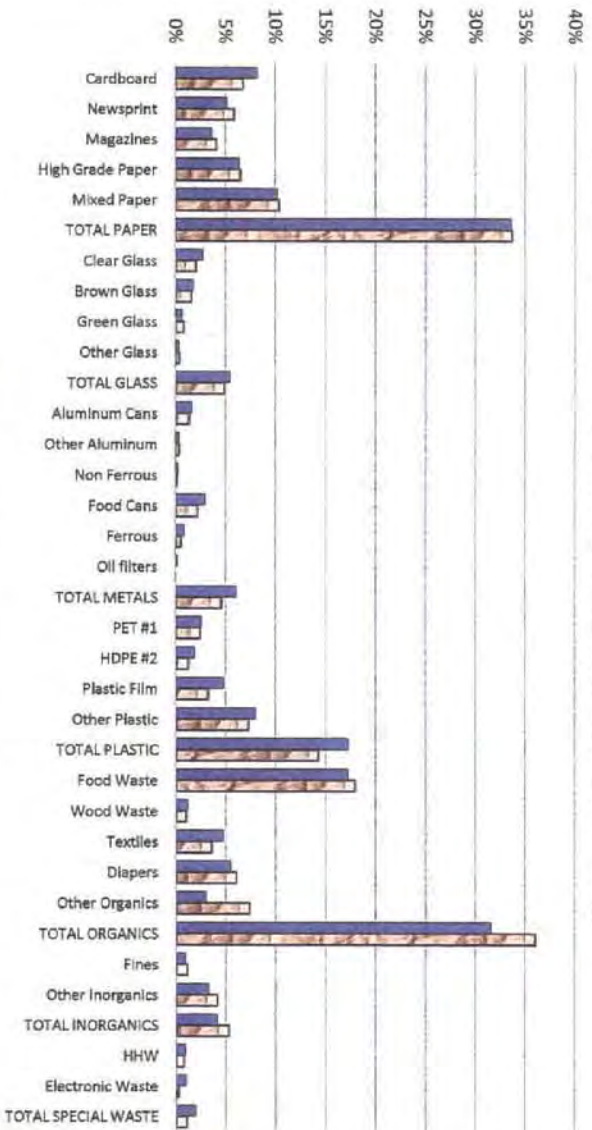
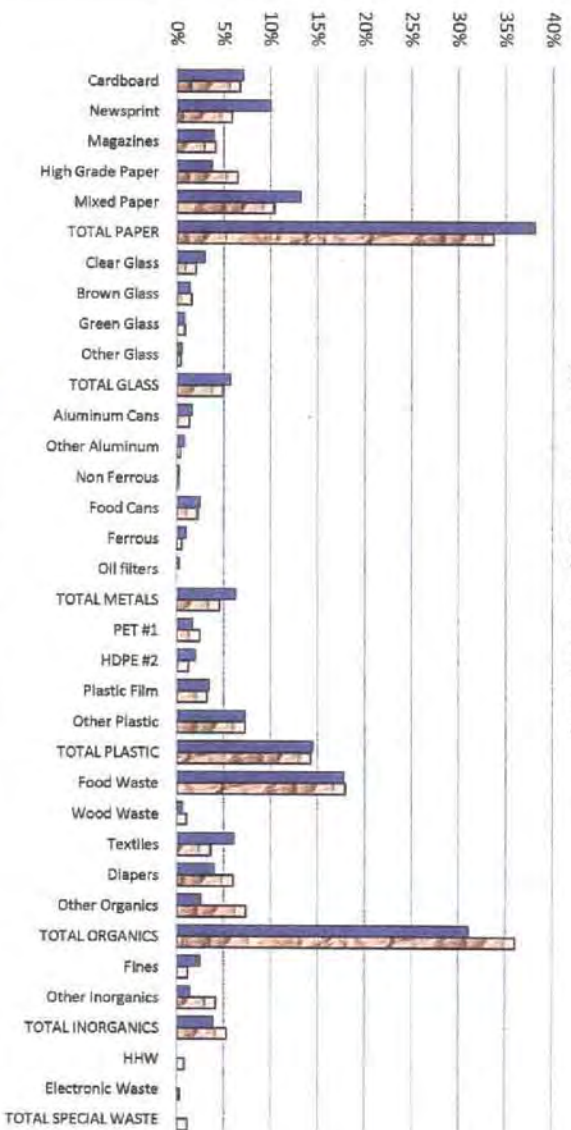


Table 6.6 - Special Waste Sorted at O'Fallon Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)	1	
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	2	2
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller		
Electronic Toy or Game		
Computer Hard Drive		
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		
Toner Cartridge		
Telephone/Answering Machine	1	2
Cell Phones, Chargers		1
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes		milk jug full
Paint, Thinner, etc.	1	2
Automotive Fluids (oil, fuel, starting fluid, etc.)		
Oil Filters		
Household Cleaners	1	
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellant Spray, Powder, Poison, etc.	2	
Over The Counter & Prescription Medicine	2	few
Beauty & Hygiene Products	2	3
Disposable Razors		1
Alkaline Batteries	20	30
Lithium & Other Batteries		
Smoke Alarm		

Weight of Batteries Reported by RBRC

56.4 oz.

68.6 oz.

Appendix 7

Osage Beach Transfer Station

APPENDIX 7 – OSAGE BEACH TRANSFER STATION

The Osage Beach Transfer Station is owned and operated by Allied Waste, Incorporated. It is located at the intersection of Highway 54 and Highway Y in Camden County which is in Solid Waste Management District T.

Demographics:

	<u>Osage Beach</u>	<u>Camden County</u>
Population	3,583	37,051
Number of Households	1,664	15,740
Average Household Size	2.07	2.31
Median Household Income	\$38,448	\$35,840

Solid Waste Collection

Allied Waste is the primary collector in the Osage Beach Transfer Station service area. A few other private haulers bring waste to this facility as well. Recycling collection in the solid waste district is only by drop-off containers.

Solid Waste Disposal

The material received at the Osage Beach transfer station is bulked and hauled to the Allied Waste Landfill in Jefferson City. The current public tonnage fee is \$52.50 per ton and an average 260 tons per day are processed through this transfer station.

Waste Reduction, Recycling, and Recovery Programs

Drop off recycling sites are available in some of the lake area communities. Otherwise, recycling is limited in this service area.

Osage Beach Transfer Station Sort Results

Sampling information and composition results are listed in Tables 7.1 through 7.6 and exhibited in Charts 7.1 through 7.4. Nothing extraordinary was noted by the sorters during the Osage Beach sort. Compared to the 1996-1997 WCS, Osage Beach had the largest variances in the Plastic (4.8% more) and Organics (4.7% less) categories as well as having 2.1% less Paper than in the previous study.

When compared to the overall 2006-2007 average, however, the Organics category was 4.4% less and represented the widest spread of difference by weight. The Osage Beach Transfer Station had the largest percentage by weight compared to the other 2006-2007 sampled sites in Brown Glass(2.48), Green Glass(1.13), Total Glass(7.08), Aluminum Cans(2), Electronic Waste(2.3), and Total Special Waste(3.5) as well as having the highest percentage by volume for Aluminum Cans(3.08), Electronic Waste(1.15) and Total Special Waste(2.08). The lowest percentage by weight in the Diaper subcategory(4.33) was also at the Osage Beach Transfer Station.

The Osage Beach Transfer Station is located in the high tourist and weekend home communities of the Lake of the Ozarks region. The abundance of glass and aluminum beverage containers would be consistent with this demographic paired with the limited availability of recycling services.

Table 7.1 - Sample Summary - Osage Beach Transfer Station

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	194	1.6	90%	10%	Rural Hwy Y area
2	269	2.3	90%	10%	Rural Hwy Y area
3	224	2.1	90%	10%	Linn Creek
4	250	2.3	80%	20%	KK, Tan-Tar-A
5	236	2.0	100%	0%	Hwy 54, 56 & KK
6	257	2.1	90%	10%	Lebanon
7	201	1.9	80%	20%	Lebanon
8	263	2.4	90%	10%	Camdenton
Total Fall	1894	16.6			
Average	237	2.1	89%	11%	

Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	286	2.3	60%	40%	Lebanon
2	206	1.9	90%	10%	Camdenton
3	258	2.3	90%	10%	Brumley
4	317	2.8	95%	5%	Rural Camdenton & HH
5	240	2.0	95%	5%	Camdenton
6	251	2.2	95%	5%	Osage Beach
7	257	2.4	95%	5%	Rural Eldridge
8	291	2.4	95%	5%	Sunrise Beach & Rural Camdenton
Total Spring	2106	18.3			
Average	263	2.3	89%	11%	

Site Total	4000	34.9			
Average	250	2.2	89%	11%	

Estimated Waste (lbs.) Accepted at Site During Sample Periods					1,560,000
--	--	--	--	--	------------------

Table 7.2 - Osage Beach Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	149	18.6	7.9%	2.05	0.256	12.4%
Newsprint	92	11.5	4.9%	0.635	0.079	3.8%
Magazines	72	9.0	3.8%	0.35	0.044	2.1%
High Grade Paper	114	14.3	6.0%	1.175	0.147	7.1%
Mixed Paper	188	23.5	9.9%	1.675	0.209	10.1%
PAPER TOTALS	615	76.9	32.5%	5.885	0.736	35.5%
Clear Glass	54	6.8	2.9%	0.2	0.025	1.2%
Brown Glass	44	5.5	2.3%	0.225	0.028	1.4%
Green Glass	23	2.9	1.2%	0.2	0.025	1.2%
Other Glass	15	1.9	0.8%	0.15	0.019	0.9%
GLASS TOTALS	136	17.0	7.2%	0.775	0.097	4.7%
Aluminum Cans	39	4.9	2.1%	0.525	0.066	3.2%
Other Aluminum	18	2.3	1.0%	0.2	0.025	1.2%
Non Ferrous	16	2.0	0.8%	0.15	0.019	0.9%
Food Cans	54	6.8	2.9%	0.4	0.050	2.4%
Ferrous	22	2.8	1.2%	0.175	0.022	1.1%
Oil filters (one)	1	0.1	0.1%	0.025	0.003	0.2%
METAL TOTALS	150	18.8	7.9%	1.475	0.184	8.9%
PET #1	60	7.5	3.2%	0.775	0.097	4.7%
HDPE #2	40	5.0	2.1%	0.775	0.097	4.7%
Plastic Film	85	10.6	4.5%	1.5	0.188	9.0%
Other Plastic	129	16.1	6.8%	1.825	0.228	11.0%
PLASTIC TOTALS	314	39.3	16.6%	4.875	0.609	29.4%
Food Waste	332	41.5	17.5%	1.225	0.153	7.4%
Wood Waste	16	2.0	0.8%	0.125	0.016	0.8%
Textiles	72	9.0	3.8%	0.5	0.063	3.0%
Diapers	74	9.3	3.9%	0.475	0.059	2.9%
Other Organics	47	5.9	2.5%	0.325	0.041	2.0%
ORGANIC TOTALS	541	67.6	28.6%	2.65	0.331	16.0%
Fines	24	3.0	1.3%	0.2	0.025	1.2%
Other Inorganics	52	6.5	2.7%	0.3	0.038	1.8%
INORGANIC TOTALS	76	9.5	4.0%	0.5	0.063	3.0%
HHW	35	4.4	1.8%	0.225	0.028	1.4%
Electronic Waste	27	3.4	1.4%	0.2	0.025	1.2%
SPECIAL WASTE TOTALS	62	7.8	3.3%	0.425	0.053	2.6%
TOTAL	1894	236.8	100%	16.585	2.073	100%

Table 7.3 - Osage Beach Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	194	24.3	9.2%	2.725	0.341	14.9%
Newsprint	87	10.9	4.1%	0.375	0.047	2.0%
Magazines	94	11.8	4.5%	0.275	0.034	1.5%
High Grade Paper	124	15.5	5.9%	1.175	0.147	6.4%
Mixed Paper	200	25.0	9.5%	2.425	0.303	13.3%
PAPER TOTALS	699	87.4	33.2%	6.975	0.872	38.1%
Clear Glass	59	7.4	2.8%	0.2	0.025	1.1%
Brown Glass	55	6.9	2.6%	0.2	0.025	1.1%
Green Glass	22	2.8	1.0%	0.1	0.013	0.5%
Other Glass	11	1.4	0.5%	0.05	0.006	0.3%
GLASS TOTALS	147	18.4	7.0%	0.55	0.069	3.0%
Aluminum Cans	41	5.1	1.9%	0.55	0.069	3.0%
Other Aluminum	8	1.0	0.4%	0.1	0.013	0.5%
Non Ferrous	18	2.3	0.9%	0.075	0.009	0.4%
Food Cans	62	7.8	2.9%	0.35	0.044	1.9%
Ferrous	16	2.0	0.8%	0.075	0.009	0.4%
Oil filters (one)	4	0.5	0.2%	0.025	0.003	0.1%
METAL TOTALS	149	18.6	7.1%	1.175	0.147	6.4%
PET #1	52	6.5	2.5%	0.875	0.109	4.8%
HDPE #2	42	5.3	2.0%	0.8	0.100	4.4%
Plastic Film	130	16.3	6.2%	2.375	0.297	13.0%
Other Plastic	188	23.5	8.9%	2.25	0.281	12.3%
PLASTIC TOTALS	412	51.5	19.6%	6.3	0.788	34.4%
Food Waste	292	36.5	13.9%	1.2	0.150	6.6%
Wood Waste	17	2.1	0.8%	0.075	0.009	0.4%
Textiles	111	13.9	5.3%	0.65	0.081	3.6%
Diapers	99	12.4	4.7%	0.425	0.053	2.3%
Other Organics	27	3.4	1.3%	0.275	0.034	1.5%
ORGANIC TOTALS	546	68.3	25.9%	2.625	0.328	14.3%
Fines	23	2.9	1.1%	0.15	0.019	0.8%
Other Inorganics	52	6.5	2.5%	0.225	0.028	1.2%
INORGANIC TOTALS	75	9.4	3.6%	0.375	0.047	2.0%
HHW	13	1.6	0.6%	0.1	0.013	0.5%
Electronic Waste	65	8.1	3.1%	0.2	0.025	1.1%
SPECIAL WASTE TOTALS	78	9.8	3.7%	0.3	0.038	1.6%
TOTAL	2106	263.3	100%	18.30	2.288	100%

Chart 7.1 - Osage Beach Results Fall 2006 vs. Spring 2007
Percentage by Weight

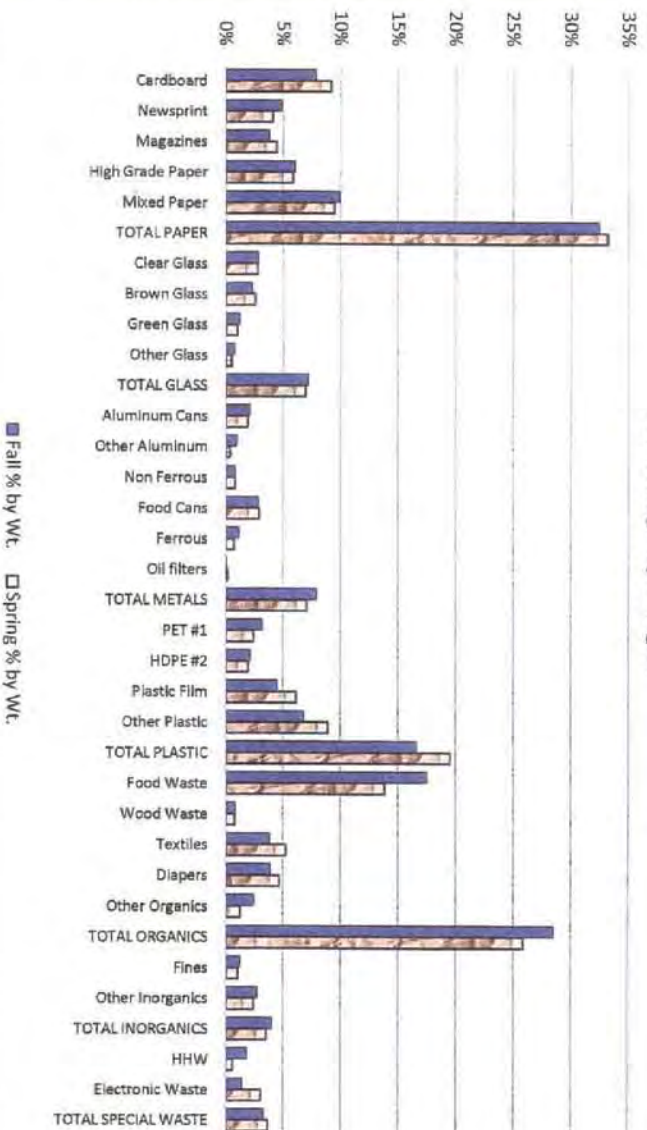
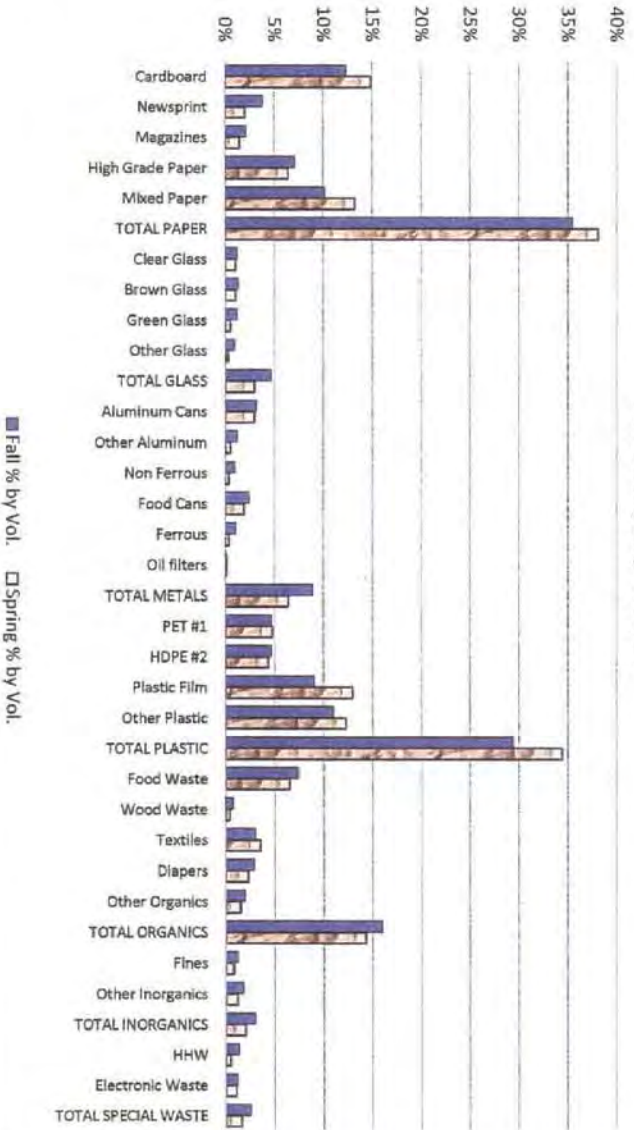


Chart 7.2 - Osage Beach Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 7.4 - Waste Composition Summary and Comparison
Osage Beach Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 11/8-11/9/06				Spring Sort - 4/23-4/24/07				Total 2006-2007 Sort Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	149	7.9%	2.05	12.4%	194	9.2%	2.73	14.9%	343	8.58%	4.78	13.69%	8.10%	8.58%	0.5%
Newsprint	92	4.9%	0.64	3.8%	87	4.1%	0.38	2.0%	179	4.48%	1.01	2.90%	6.70%	4.48%	-2.2%
Magazines	72	3.8%	0.35	2.1%	94	4.5%	0.28	1.5%	166	4.15%	0.63	1.79%	3.50%	4.15%	0.7%
High Grade Paper	114	6.0%	1.18	7.1%	124	5.9%	1.18	6.4%	238	5.95%	2.35	6.74%	4.40%	5.95%	1.6%
Mixed Paper	188	9.9%	1.68	10.1%	200	9.5%	2.43	13.3%	388	9.70%	4.10	11.75%	12.20%	9.70%	-2.5%
TOTAL PAPER	615	32.5%	5.89	35.5%	699	33.2%	6.98	38.1%	1,314	32.85%	12.86	36.86%	34.90%	32.85%	-2.1%
Clear Glass	54	2.9%	0.20	1.2%	59	2.8%	0.20	1.1%	113	2.83%	0.40	1.15%	4.60%	2.83%	-1.8%
Brown Glass	44	2.3%	0.23	1.4%	55	2.6%	0.20	1.1%	99	2.48%	0.43	1.22%	2.30%	2.48%	0.2%
Green Glass	23	1.2%	0.20	1.2%	22	1.0%	0.10	0.5%	45	1.13%	0.30	0.86%	1.00%	1.13%	0.1%
Other Glass	15	0.8%	0.15	0.9%	11	0.5%	0.05	0.3%	26	0.65%	0.20	0.57%	0.50%	0.65%	0.2%
TOTAL GLASS	136	7.2%	0.78	4.7%	147	7.0%	0.55	3.0%	283	7.08%	1.33	3.80%	8.40%	7.08%	-1.3%
Aluminum Cans	39	2.1%	0.53	3.2%	41	1.9%	0.55	3.0%	80	2.00%	1.08	3.08%	1.90%	2.00%	0.1%
Other Aluminum	18	1.0%	0.20	1.2%	8	0.4%	0.10	0.5%	26	0.65%	0.30	0.86%	0.60%	0.65%	0.1%
Non Ferrous	16	0.8%	0.15	0.9%	18	0.9%	0.08	0.4%	34	0.85%	0.23	0.64%	0.30%	0.85%	0.6%
Food Cans	54	2.9%	0.40	2.4%	62	2.9%	0.35	1.9%	116	2.90%	0.75	2.15%	2.80%	2.90%	0.1%
Ferrous	22	1.2%	0.18	1.1%	16	0.8%	0.08	0.4%	38	0.95%	0.25	0.72%	1.00%	0.95%	-0.1%
Oil filters	1	0.1%	0.03	0.2%	4	0.2%	0.03	0.1%	5	0.13%	0.05	0.14%	0.10%	0.13%	0.0%
TOTAL METALS	150	7.9%	1.48	8.9%	149	7.1%	1.18	6.4%	299	7.48%	2.65	7.60%	6.70%	7.48%	0.8%
PET #1	60	3.2%	0.78	4.7%	52	2.5%	0.88	4.8%	112	2.80%	1.65	4.73%	1.50%	2.80%	1.3%
HDPE #2	40	2.1%	0.78	4.7%	42	2.0%	0.80	4.4%	82	2.05%	1.58	4.51%	1.90%	2.05%	0.2%
Plastic Film	85	4.5%	1.50	9.0%	130	6.2%	2.38	13.0%	215	5.38%	3.88	11.11%	3.40%	5.38%	2.0%
Other Plastic	129	6.8%	1.83	11.0%	188	8.9%	2.25	12.3%	317	7.93%	4.08	11.68%	6.60%	7.93%	1.3%
TOTAL PLASTIC	314	16.6%	4.88	29.4%	412	19.6%	6.30	34.4%	726	18.15%	11.18	32.03%	13.40%	18.15%	4.8%
Food Waste	332	17.5%	1.23	7.4%	292	13.9%	1.20	6.6%	624	15.60%	2.43	6.95%	20.50%	15.60%	-4.9%
Wood Waste	16	0.8%	0.13	0.8%	17	0.8%	0.08	0.4%	33	0.83%	0.20	0.57%	0.80%	0.83%	0.0%
Textiles	72	3.8%	0.50	3.0%	111	5.3%	0.65	3.6%	183	4.58%	1.15	3.30%	3.50%	4.58%	1.1%
Diapers	74	3.9%	0.48	2.9%	99	4.7%	0.43	2.3%	173	4.33%	0.90	2.58%	3.70%	4.33%	0.6%
Other Organics	47	2.5%	0.33	2.0%	27	1.3%	0.28	1.5%	74	1.85%	0.60	1.72%	3.40%	1.85%	-1.6%
TOTAL ORGANICS	541	28.6%	2.65	16.0%	546	25.9%	2.63	14.3%	1,087	27.18%	5.28	15.12%	31.90%	27.18%	-4.7%
Fines	24	1.3%	0.20	1.2%	23	1.1%	0.15	0.8%	47	1.18%	0.35	1.00%	3.10%	1.18%	-1.9%
Other Inorganics	52	2.7%	0.30	1.8%	52	2.5%	0.23	1.2%	104	2.60%	0.53	1.50%	0.90%	2.60%	1.7%
TOTAL INORGANICS	76	4.0%	0.50	3.0%	75	3.6%	0.38	2.0%	151	3.78%	0.88	2.51%	4.00%	3.78%	-0.2%
HHW	35	1.8%	0.23	1.4%	13	0.6%	0.10	0.5%	48	1.20%	0.33	0.93%	n/a	1.20%	1.2%
Electronic Waste	27	1.4%	0.20	1.2%	65	3.1%	0.20	1.1%	92	2.30%	0.40	1.15%	n/a	2.30%	2.3%
TOTAL SPECIAL WASTE	62	3.3%	0.43	2.6%	78	3.7%	0.30	1.6%	140	3.50%	0.73	2.08%		3.50%	3.5%
TOTAL COMPOSITION	1,894	100%	16.6	100%	2,106	100%	18.30	100%	4,000	100%	34.8	100%	100%	100%	0%

**Table 7.5 - Waste Composition Summary and Comparison Osage Beach Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 11/8-11/9/06				Spring Sort - 4/23-4/24/07				Total 2006-2007 Results for Site				Avg. All Sites	Osage Beach	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	149	7.9%	2.05	12.4%	194	9.2%	2.73	14.9%	343	8.58%	4.78	13.69%	8.20%	8.58%	0.4%
Newsprint	92	4.9%	0.64	3.8%	87	4.1%	0.38	2.0%	179	4.48%	1.01	2.90%	5.17%	4.48%	-0.7%
Magazines	72	3.8%	0.35	2.1%	94	4.5%	0.28	1.5%	166	4.15%	0.63	1.79%	3.66%	4.15%	0.5%
High Grade Paper	114	6.0%	1.18	7.1%	124	5.9%	1.18	6.4%	238	5.95%	2.35	6.74%	6.40%	5.95%	-0.4%
Mixed Paper	188	9.9%	1.68	10.1%	200	9.5%	2.43	13.3%	388	9.70%	4.10	11.75%	10.20%	9.70%	-0.5%
TOTAL PAPER	615	32.5%	5.89	35.5%	699	33.2%	6.98	38.1%	1,314	32.85%	12.86	36.86%	33.63%	32.85%	-0.8%
Clear Glass	54	2.9%	0.20	1.2%	59	2.8%	0.20	1.1%	113	2.83%	0.40	1.15%	2.71%	2.83%	0.1%
Brown Glass	44	2.3%	0.23	1.4%	55	2.6%	0.20	1.1%	99	2.48%	0.43	1.22%	1.77%	2.48%	0.7%
Green Glass	23	1.2%	0.20	1.2%	22	1.0%	0.10	0.5%	45	1.13%	0.30	0.86%	0.83%	1.13%	0.5%
Other Glass	15	0.8%	0.15	0.9%	11	0.5%	0.05	0.3%	26	0.65%	0.20	0.57%	0.32%	0.65%	0.3%
TOTAL GLASS	136	7.2%	0.78	4.7%	147	7.0%	0.55	3.0%	283	7.08%	1.33	3.80%	5.44%	7.08%	1.6%
Aluminum Cans	39	2.1%	0.53	3.2%	41	1.9%	0.55	3.0%	80	2.00%	1.08	3.08%	1.59%	2.00%	0.4%
Other Aluminum	18	1.0%	0.20	1.2%	8	0.4%	0.10	0.5%	26	0.65%	0.30	0.86%	0.34%	0.65%	0.3%
Non Ferrous	16	0.8%	0.15	0.9%	18	0.9%	0.08	0.4%	34	0.85%	0.23	0.64%	0.23%	0.85%	0.6%
Food Cans	54	2.9%	0.40	2.4%	62	2.9%	0.35	1.9%	116	2.90%	0.75	2.15%	2.93%	2.90%	0.0%
Ferrous	22	1.2%	0.18	1.1%	16	0.8%	0.08	0.4%	38	0.95%	0.25	0.72%	0.87%	0.95%	0.1%
Oil filters	1	0.1%	0.03	0.2%	4	0.2%	0.03	0.1%	5	0.13%	0.05	0.14%	0.08%	0.13%	0.0%
TOTAL METALS	150	7.9%	1.48	8.9%	149	7.1%	1.18	6.4%	299	7.48%	2.65	7.60%	6.04%	7.48%	1.4%
PET #1	60	3.2%	0.78	4.7%	52	2.5%	0.88	4.8%	112	2.80%	1.65	4.73%	2.55%	2.80%	0.3%
HDPE #2	40	2.1%	0.78	4.7%	42	2.0%	0.80	4.4%	82	2.05%	1.58	4.51%	1.90%	2.05%	0.2%
Plastic Film	85	4.5%	1.50	9.0%	130	6.2%	2.38	13.0%	215	5.38%	3.88	11.11%	4.82%	5.38%	0.6%
Other Plastic	129	6.8%	1.83	11.0%	188	8.9%	2.25	12.3%	317	7.93%	4.08	11.68%	7.99%	7.93%	-0.1%
TOTAL PLASTIC	314	16.6%	4.88	29.4%	412	19.6%	6.30	34.4%	726	18.15%	11.18	32.03%	17.25%	18.15%	0.9%
Food Waste	332	17.5%	1.23	7.4%	292	13.9%	1.20	6.6%	624	15.60%	2.43	6.95%	17.22%	15.60%	-1.6%
Wood Waste	16	0.8%	0.13	0.8%	17	0.8%	0.08	0.4%	33	0.83%	0.20	0.57%	1.19%	0.83%	-0.4%
Textiles	72	3.8%	0.50	3.0%	111	5.3%	0.65	3.6%	183	4.58%	1.15	3.30%	4.73%	4.58%	-0.2%
Diapers	74	3.9%	0.48	2.9%	99	4.7%	0.43	2.3%	173	4.33%	0.80	2.58%	5.48%	4.33%	-1.2%
Other Organics	47	2.5%	0.33	2.0%	27	1.3%	0.28	1.5%	74	1.85%	0.60	1.72%	2.97%	1.85%	-1.1%
TOTAL ORGANICS	541	28.6%	2.65	16.0%	546	25.9%	2.63	14.3%	1,087	27.18%	5.28	15.12%	31.59%	27.18%	-4.4%
Fines	24	1.3%	0.20	1.2%	23	1.1%	0.15	0.8%	47	1.18%	0.35	1.00%	0.93%	1.18%	0.2%
Other Inorganics	52	2.7%	0.30	1.8%	52	2.5%	0.23	1.2%	104	2.60%	0.53	1.50%	3.21%	2.60%	-0.6%
TOTAL INORGANICS	76	4.0%	0.50	3.0%	75	3.6%	0.38	2.0%	151	3.78%	0.88	2.51%	4.14%	3.78%	-0.4%
HHW	35	1.8%	0.23	1.4%	13	0.6%	0.10	0.5%	48	1.20%	0.33	0.93%	0.92%	1.20%	1.2%
Electronic Waste	27	1.4%	0.20	1.2%	65	3.1%	0.20	1.1%	92	2.30%	0.40	1.15%	0.99%	2.30%	2.3%
TOTAL SPECIAL WASTE	62	3.3%	0.43	2.6%	78	3.7%	0.30	1.6%	140	3.50%	0.73	2.08%	1.91%	3.50%	1.6%
TOTAL COMPOSITION	1,894	100%	16.8	100%	2,106	100%	18.30	100%	4,000	100%	34.9	100%	100%	100%	0%

Chart 7.3 - Osage Beach Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

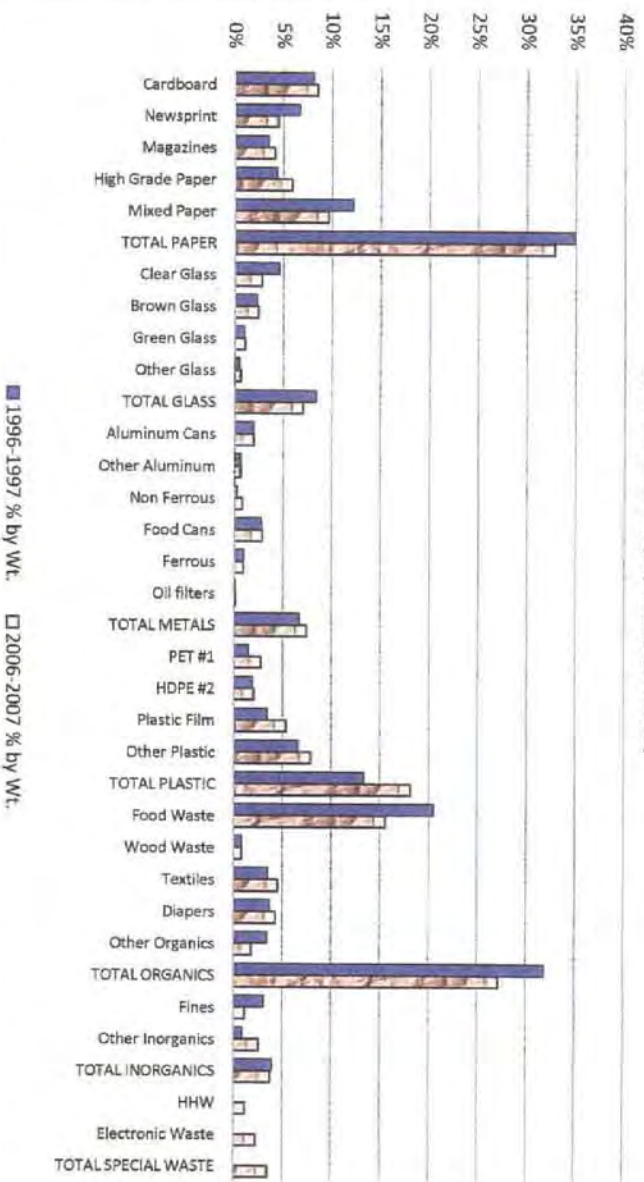


Chart 7.4 - Osage Beach Results 2006-2007 vs. 2006-2007 Sort Average

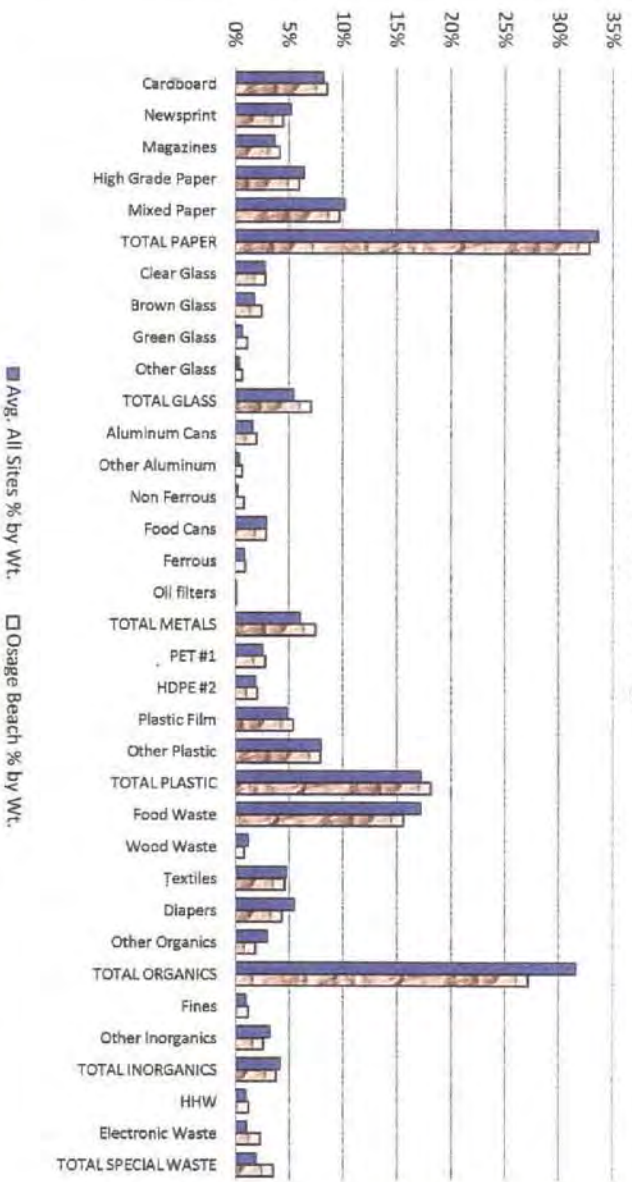


Table 7.6 - Special Waste Sorted at Osage Beach Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical Item (CD player, radio, boom box, etc.)		
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)		3
TV, VCR, DVD player, Game Stations, etc.	1	1
Remote Control or Game Controller	3	
Electronic Toy or Game		2
Computer Hard Drive		1
Computer Monitor		
Computer Keyboard		
Computer Mouse	1	
Computer Printer		
Toner Cartridge		
Telephone/Answering Machine		
Cell Phones, Chargers		2
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes		few
Paint, Thinner, etc.	1	1
Automotive Fluids (oil, fuel, starting fluid, etc.)		
Oil Filters		
Household Cleaners		3
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellant Spray, Powder, Poison, etc.	3	1
Over The Counter & Prescription Medicine	13	13
Beauty & Hygiene Products	4	2
Disposable Razors		
Alkaline Batteries	35	9
Lithium & Other Batteries		
Smoke Alarm		
Other	propane cylinder, fireworks	

Weight of Batteries Reported by RBRC

79.6 oz.

6.5 oz.

Appendix 8

Pemiscot County Transfer Station

APPENDIX 8 – PEMISCOT COUNTY TRANSFER STATION

The Pemiscot County Transfer Station is located in the boot heel of the state near the city of Caruthersville about twelve miles off Highway 84 in Solid Waste Management District 5.

Demographics:

	<u>Caruthersville</u>	<u>Pemiscot County</u>
Population	6,704	20,047
Number of Households	2,646	7,906
Average Household Size	2.5	2.52
Median Household Income	\$19,601	\$21,911

Solid Waste Collection

Various public and private solid waste haulers bring material to the Pemiscot County Transfer Station.

Solid Waste Disposal

Solid Waste received at the transfer station is bulked and shipped to landfills in Dexter and Poplar Bluff. The tipping fee at the transfer station is currently \$35 per ton and approximately 150 tons of waste are received per day.

Waste Reduction, Recycling, and Recovery Programs

Drop-off containers are available for recycling in most of the towns throughout the solid waste management district. When the last waste composition study was completed ten years ago, only one of the communities had drop-off recycling available. The County owns and operates the recycling center where the trailers are emptied and materials baled for marketing.

Pemiscot County Transfer Station Sort Results

Sampling information and composition results are listed in Tables 8.1 through 8.6 and exhibited in Charts 8.1 through 8.4. No special remarks were noted by the sorters during the Pemiscot County sort. Differences in the Pemiscot County composition compared to the 1996-1997 WCS included 6.4% less Paper, 4.1% more Plastic, and 3.7% more Organics. The fluctuation in Paper was primarily due to an 8.5% decrease in the Mixed Paper subcategory, while the Organics saw increases in the Textiles and Diapers subcategories of 2.3% and 3.3%, respectively.

When the Pemiscot County results are compared to the overall 2006-2007 average, Paper and Organics are still the greatest variances, with 2.4% less and 2% more, respectively. While the same categories influenced the Organics variance as in the comparison to the 1996-1997 WCS, different subcategories reflected the change in the Paper category. Newsprint, Magazines and High Grade Paper all showed less than the overall 2006-2007 average while slightly more than average Cardboard and Mixed Paper are in the Pemiscot County waste stream. When comparing the Pemiscot County results to the other sites sampled in the 2006-2007 study, the subcategories with the highest percentage by weight are Cardboard(9.41), PET #1 Plastic(2.91), and Diapers(7.31) while the subcategories with the highest percentage by volume existing at the Pemiscot County site are Food Cans(3.11) and Diapers(3.79). Categories and subcategories with the lowest

percentage by weight when compared to the other sites were Newsprint(3.33), Magazines(3.19), High Grade Paper(4.79), Total Paper(31.21) and Other Organics(.97) while the lowest percentage by volume for Other Organics(.87) was also observed at Pemiscot County.

Table 8.1 - Sample Summary - Pemiscot County Transfer Station

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	255	2.3	90%	10%	Kennett
2	391	2.8	55%	45%	Poplar Bluff
3	226	1.9	90%	10%	Caruthersville
4	284	2.3	90%	10%	Steele
5	301	2.7	95%	5%	Kennett
6	257	2.2	80%	20%	Hayti
7	186	2.0	95%	5%	New Madrid
8	264	3.2	90%	10%	Caruthersville
Total Fall	2164	19.4			
Average	271	2.4	86%	14%	

Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	304	2.4	60%	40%	Doniphan
2	241	2.1	100%	0%	Poplar Bluff
3	259	2.5	90%	10%	Portageville
4	287	2.7	90%	10%	Kennett
5	348	3.2	95%	5%	Poplar Bluff
6	219	2.6	90%	10%	Holcomb & Kennett
7	272	2.8	80%	20%	Kennett
8	231	2.6	95%	5%	Hayti Heights
Total Spring	2161	20.8			
Average	270	2.6	87.5%	12.5%	

Site Total	4325	40.2			
Average	270	2.5	87%	13%	

Estimated Waste (lbs.) Accepted at Site During Sample Periods					900,000
--	--	--	--	--	---------

Table 8.2 - Pemiscot County Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	185	23.1	8.5%	2.3275	0.291	12.0%
Newsprint	71	8.9	3.3%	0.625	0.078	3.2%
Magazines	65	8.1	3.0%	0.425	0.053	2.2%
High Grade Paper	102	12.8	4.7%	1.075	0.134	5.5%
Mixed Paper	234	29.3	10.8%	2.175	0.272	11.2%
PAPER TOTALS	657	82.1	30.4%	6.6275	0.828	34.1%
Clear Glass	51	6.4	2.4%	0.225	0.028	1.2%
Brown Glass	33	4.1	1.5%	0.175	0.022	0.9%
Green Glass	17	2.1	0.8%	0.125	0.016	0.6%
Other Glass	5	0.6	0.2%	0.05	0.006	0.3%
GLASS TOTALS	106	13.3	4.9%	0.575	0.072	3.0%
Aluminum Cans	50	6.3	2.3%	0.725	0.091	3.7%
Other Aluminum	4	0.5	0.2%	0.05	0.006	0.3%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	85	10.6	3.9%	0.775	0.097	4.0%
Ferrous	18	2.3	0.8%	0.15	0.019	0.8%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	157	19.6	7.3%	1.7	0.213	8.8%
PET #1	74	9.3	3.4%	1.025	0.128	5.3%
HDPE #2	40	5.0	1.8%	0.825	0.103	4.2%
Plastic Film	88	11.0	4.1%	1.75	0.219	9.0%
Other Plastic	157	19.6	7.3%	2.075	0.259	10.7%
PLASTIC TOTALS	359	44.9	16.6%	5.675	0.709	29.2%
Food Waste	407	50.9	18.8%	2.15	0.269	11.1%
Wood Waste	6	0.8	0.3%	0.025	0.003	0.1%
Textiles	167	20.9	7.7%	0.95	0.119	4.9%
Diapers	185	23.1	8.5%	1.025	0.128	5.3%
Other Organics	13	1.6	0.6%	0.1	0.013	0.5%
ORGANIC TOTALS	778	97.3	36.0%	4.25	0.531	21.9%
Fines	12	1.5	0.6%	0.075	0.009	0.4%
Other Inorganics	76	9.5	3.5%	0.475	0.059	2.4%
INORGANIC TOTALS	88	11.0	4.1%	0.55	0.069	2.8%
HHW	7	0.9	0.3%	0.025	0.003	0.1%
Electronic Waste	12	1.5	0.6%	0.025	0.003	0.1%
SPECIAL WASTE TOTALS	19	2.4	0.9%	0.05	0.006	0.3%
TOTAL	2164	270.5	100%	19.428	2.428	100%

Table 8.3 - Pemiscot County Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	222	27.8	10.3%	3.2	0.4	15.4%
Newsprint	73	9.1	3.4%	0.525	0.066	2.5%
Magazines	73	9.1	3.4%	0.275	0.034	1.3%
High Grade Paper	105	13.1	4.9%	1.375	0.172	6.6%
Mixed Paper	220	27.5	10.2%	2.475	0.309	11.9%
PAPER TOTALS	693	86.6	32.1%	7.85	0.981	37.7%
Clear Glass	62	7.8	2.9%	0.25	0.031	1.2%
Brown Glass	29	3.6	1.3%	0.175	0.022	0.8%
Green Glass	11	1.4	0.5%	0.1	0.013	0.5%
Other Glass	9	1.1	0.4%	0.075	0.009	0.4%
GLASS TOTALS	111	13.9	5.1%	0.6	0.075	2.9%
Aluminum Cans	28	3.5	1.3%	0.375	0.047	1.8%
Other Aluminum	11	1.4	0.5%	0.125	0.016	0.6%
Non Ferrous	5	0.6	0.2%	0.05	0.006	0.2%
Food Cans	61	7.6	2.8%	0.475	0.059	2.3%
Ferrous	22	2.8	1.0%	0.15	0.019	0.7%
Oil filters (one)	2	0.3	0.1%	0.05	0.006	0.2%
METAL TOTALS	129	16.1	6.0%	1.225	0.153	5.9%
PET #1	52	6.5	2.4%	0.875	0.109	4.2%
HDPE #2	49	6.1	2.3%	1	0.125	4.8%
Plastic Film	142	17.8	6.6%	2.65	0.331	12.7%
Other Plastic	176	22.0	8.1%	2.7	0.338	13.0%
PLASTIC TOTALS	419	52.4	19.4%	7.225	0.903	34.7%
Food Waste	394	49.3	18.2%	1.675	0.209	8.1%
Wood Waste	36	4.5	1.7%	0.15	0.019	0.7%
Textiles	84	10.5	3.9%	0.5	0.063	2.4%
Diapers	131	16.4	6.1%	0.5	0.063	2.4%
Other Organics	29	3.6	1.3%	0.25	0.031	1.2%
ORGANIC TOTALS	674	84.3	31.2%	3.075	0.384	14.8%
Fines	22	2.8	1.0%	0.2	0.025	1.0%
Other Inorganics	76	9.5	3.5%	0.35	0.044	1.7%
INORGANIC TOTALS	98	12.3	4.5%	0.55	0.069	2.6%
HHW	30	3.8	1.4%	0.2	0.025	1.0%
Electronic Waste	7	0.9	0.3%	0.075	0.009	0.4%
SPECIAL WASTE TOTALS	37	4.6	1.7%	0.275	0.034	1.3%
TOTAL	2161	270.1	100%	20.800	2.600	100%

Chart 8.1 - Pemiscot Co. Fall 2006 vs. Spring 2007 Results
Percentage by Weight

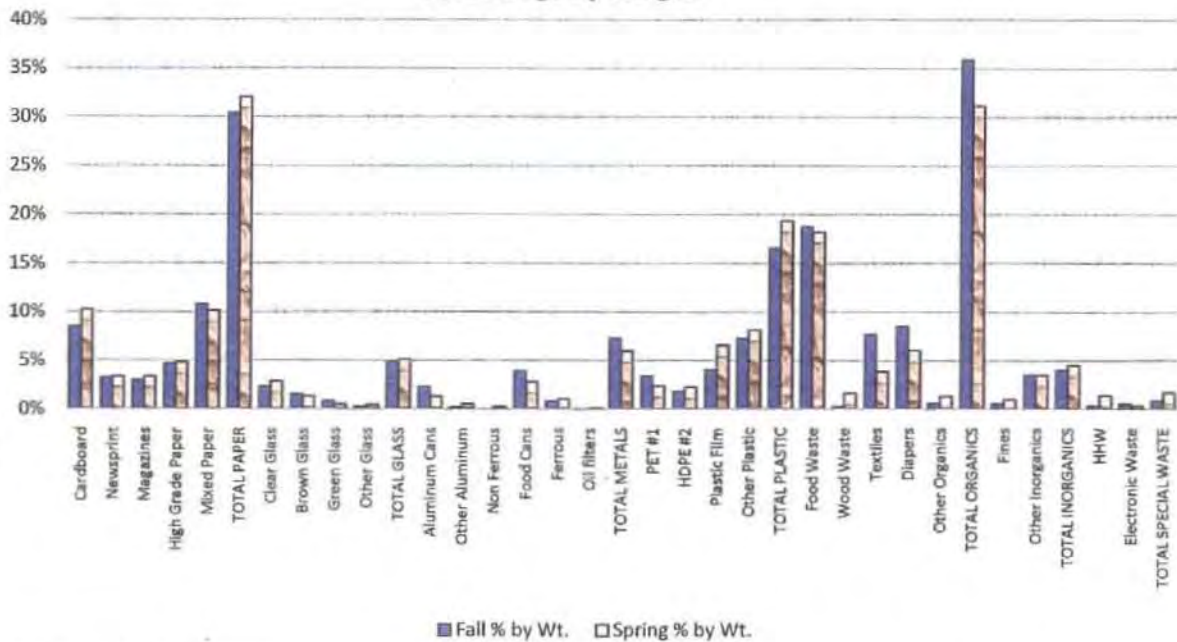
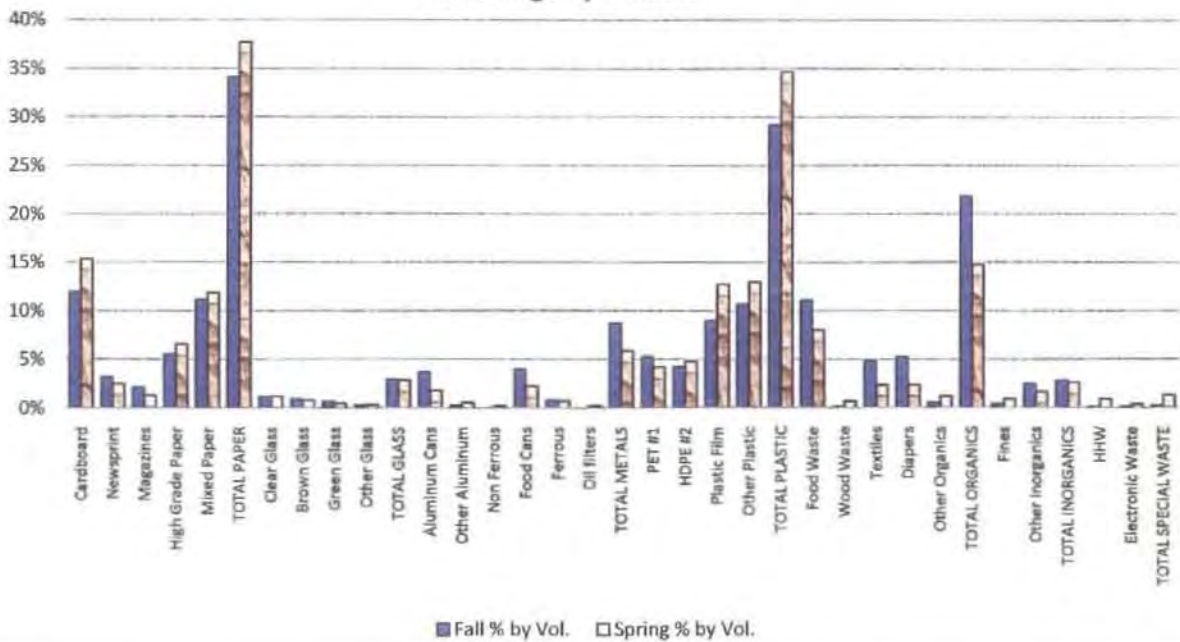


Chart 8.2 - Pemiscot Co. Fall 2006 vs. Spring 2007 Results
Percentage by Volume



**Table 8.4 - Waste Composition Summary and Comparison
Pemiscot County Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 10/18-10/19/06				Spring Sort - 4/12-4/13/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	185	8.5%	2.33	12.0%	222	10.3%	3.20	15.4%	407	9.41%	5.53	13.74%	6.40%	9.41%	3.0%
Newsprint	71	3.3%	0.63	3.2%	73	3.4%	0.53	2.5%	144	3.33%	1.15	2.86%	5.60%	3.33%	-2.3%
Magazines	65	3.0%	0.43	2.2%	73	3.4%	0.28	1.3%	138	3.19%	0.70	1.74%	3.70%	3.19%	-0.5%
High Grade Paper	102	4.7%	1.08	5.5%	105	4.9%	1.38	6.6%	207	4.79%	2.45	6.09%	2.90%	4.79%	1.9%
Mixed Paper	234	10.8%	2.18	11.2%	220	10.2%	2.48	11.9%	454	10.50%	4.65	11.56%	19.00%	10.50%	-8.5%
TOTAL PAPER	657	30.4%	6.63	34.1%	693	32.1%	7.85	37.7%	1,350	31.21%	14.48	35.99%	37.60%	31.21%	-6.4%
Clear Glass	51	2.4%	0.23	1.2%	62	2.9%	0.25	1.2%	113	2.61%	0.48	1.18%	3.70%	2.61%	-1.1%
Brown Glass	33	1.5%	0.18	0.9%	29	1.3%	0.18	0.8%	62	1.43%	0.35	0.87%	2.30%	1.43%	-0.9%
Green Glass	17	0.8%	0.13	0.6%	11	0.5%	0.10	0.5%	28	0.65%	0.23	0.56%	0.40%	0.65%	0.2%
Other Glass	5	0.2%	0.05	0.3%	9	0.4%	0.08	0.4%	14	0.32%	0.13	0.31%	0.60%	0.32%	-0.3%
TOTAL GLASS	106	4.9%	0.58	3.0%	111	5.1%	0.60	2.9%	217	5.02%	1.18	2.92%	7.00%	5.02%	-2.0%
Aluminum Cans	50	2.3%	0.73	3.7%	28	1.3%	0.38	1.8%	78	1.80%	1.10	2.73%	1.70%	1.80%	0.1%
Other Aluminum	4	0.2%	0.05	0.3%	11	0.5%	0.13	0.6%	15	0.35%	0.18	0.44%	0.90%	0.35%	-0.6%
Non Ferrous	-	0.0%	-	0.0%	5	0.2%	0.05	0.2%	5	0.12%	0.05	0.12%	0.20%	0.12%	-0.1%
Food Cans	85	3.9%	0.78	4.0%	61	2.8%	0.48	2.3%	146	3.38%	1.25	3.11%	3.30%	3.38%	0.1%
Ferrous	18	0.8%	0.15	0.8%	22	1.0%	0.15	0.7%	40	0.92%	0.30	0.75%	0.80%	0.92%	0.1%
Oil filters	-	0.0%	-	0.0%	2	0.1%	0.05	0.2%	2	0.05%	0.05	0.12%	0.00%	0.05%	0.0%
TOTAL METALS	157	7.3%	1.70	8.8%	129	6.0%	1.23	5.9%	286	6.61%	2.93	7.27%	6.90%	6.61%	-0.3%
PET #1	74	3.4%	1.03	5.3%	52	2.4%	0.88	4.2%	126	2.91%	1.90	4.72%	1.60%	2.91%	1.3%
HDPE #2	40	1.8%	0.83	4.2%	49	2.3%	1.00	4.8%	89	2.06%	1.83	4.54%	2.20%	2.06%	-0.1%
Plastic Film	88	4.1%	1.75	9.0%	142	6.6%	2.65	12.7%	230	5.32%	4.40	10.94%	3.70%	5.32%	1.6%
Other Plastic	157	7.3%	2.08	10.7%	176	8.1%	2.70	13.0%	333	7.70%	4.78	11.87%	6.40%	7.70%	1.3%
TOTAL PLASTIC	359	16.6%	5.68	29.2%	419	19.4%	7.23	34.7%	778	17.99%	12.90	32.07%	13.90%	17.99%	4.1%
Food Waste	407	18.8%	2.15	11.1%	394	18.2%	1.68	8.1%	801	18.52%	3.83	9.51%	19.80%	18.52%	-1.3%
Wood Waste	6	0.3%	0.03	0.1%	36	1.7%	0.15	0.7%	42	0.97%	0.18	0.44%	0.40%	0.97%	0.6%
Textiles	167	7.7%	0.95	4.9%	84	3.9%	0.50	2.4%	251	5.80%	1.45	3.60%	3.40%	5.80%	2.4%
Diapers	185	8.5%	1.03	5.3%	131	6.1%	0.50	2.4%	316	7.31%	1.53	3.79%	4.00%	7.31%	3.3%
Other Organics	13	0.6%	0.10	0.5%	29	1.3%	0.25	1.2%	42	0.97%	0.35	0.87%	2.30%	0.97%	-1.3%
TOTAL ORGANICS	778	36.0%	4.25	21.9%	674	31.2%	3.08	14.8%	1,452	33.57%	7.33	18.21%	29.90%	33.57%	3.7%
Fines	12	0.6%	0.08	0.4%	22	1.0%	0.20	1.0%	34	0.79%	0.28	0.68%	3.40%	0.79%	-2.6%
Other Inorganics	76	3.5%	0.48	2.4%	76	3.5%	0.35	1.7%	152	3.51%	0.83	2.05%	1.10%	3.51%	2.4%
TOTAL INORGANICS	88	4.1%	0.55	2.8%	98	4.5%	0.55	2.6%	186	4.30%	1.10	2.73%	4.50%	4.30%	-0.2%
HHW	7	0.3%	0.03	0.1%	30	1.4%	0.20	1.0%	37	0.86%	0.23	0.56%	n/a	0.86%	0.9%
Electronic Waste	12	0.6%	0.03	0.1%	7	0.3%	0.08	0.4%	19	0.44%	0.10	0.25%	n/a	0.44%	0.4%
TOTAL SPECIAL WASTE	19	0.9%	0.05	0.3%	37	1.7%	0.28	1.3%	56	1.29%	0.33	0.81%		1.29%	1.3%
TOTAL COMPOSITION	2,164	100%	19.4	100%	2,161	100%	20.80	100%	4,325	100%	40.23	100%	100%	100%	0%

**Table 8.5 - Waste Composition Summary and Comparison Pemiscot County Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 10/18-10/19/06				Spring Sort - 4/12-4/13/07				Total 2006-2007 Results for Site				Avg. All Sites	Pem. Co.	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	185	8.5%	2.328	12.0%	222	10.3%	3.20	15.4%	407	9.41%	5.53	13.74%	8.20%	9.41%	1.2%
Newsprint	71	3.3%	0.625	3.2%	73	3.4%	0.53	2.5%	144	3.33%	1.15	2.86%	5.17%	3.33%	-1.8%
Magazines	65	3.0%	0.425	2.2%	73	3.4%	0.28	1.3%	138	3.19%	0.70	1.74%	3.66%	3.19%	-0.5%
High Grade Paper	102	4.7%	1.075	5.5%	105	4.9%	1.38	6.6%	207	4.79%	2.45	6.09%	6.40%	4.79%	-1.6%
Mixed Paper	234	10.8%	2.175	11.2%	220	10.2%	2.48	11.9%	454	10.50%	4.65	11.56%	10.20%	10.50%	0.3%
TOTAL PAPER	657	30.4%	6.628	34.1%	693	32.1%	7.85	37.7%	1,350	31.21%	14.48	35.99%	33.63%	31.21%	-2.4%
Clear Glass	51	2.4%	0.225	1.2%	62	2.9%	0.25	1.2%	113	2.61%	0.48	1.18%	2.71%	2.61%	-0.1%
Brown Glass	33	1.5%	0.175	0.9%	29	1.3%	0.18	0.8%	62	1.43%	0.35	0.87%	1.77%	1.43%	-0.3%
Green Glass	17	0.8%	0.125	0.6%	11	0.5%	0.10	0.5%	28	0.65%	0.23	0.56%	0.63%	0.65%	0.0%
Other Glass	5	0.2%	0.050	0.3%	9	0.4%	0.08	0.4%	14	0.32%	0.13	0.31%	0.32%	0.32%	0.0%
TOTAL GLASS	106	4.9%	0.575	3.0%	111	5.1%	0.60	2.9%	217	5.02%	1.18	2.92%	5.44%	5.02%	-0.4%
Aluminum Cans	50	2.3%	0.725	3.7%	28	1.3%	0.38	1.8%	78	1.80%	1.10	2.73%	1.59%	1.80%	0.2%
Other Aluminum	4	0.2%	0.050	0.3%	11	0.5%	0.13	0.6%	15	0.35%	0.18	0.44%	0.34%	0.35%	0.0%
Non Ferrous	-	0.0%	-	0.0%	5	0.2%	0.05	0.2%	5	0.12%	0.05	0.12%	0.23%	0.12%	-0.1%
Food Cans	85	3.9%	0.775	4.0%	61	2.8%	0.48	2.3%	146	3.38%	1.25	3.11%	2.93%	3.38%	0.4%
Ferrous	18	0.8%	0.150	0.8%	22	1.0%	0.15	0.7%	40	0.92%	0.30	0.75%	0.87%	0.92%	0.1%
Oil filters	-	0.0%	-	0.0%	2	0.1%	0.05	0.2%	2	0.05%	0.05	0.12%	0.08%	0.05%	0.0%
TOTAL METALS	157	7.3%	1.700	8.8%	129	6.0%	1.23	5.9%	286	6.61%	2.93	7.27%	6.04%	6.61%	0.6%
PET #1	74	3.4%	1.025	5.3%	52	2.4%	0.88	4.2%	126	2.91%	1.90	4.72%	2.55%	2.91%	0.4%
HDPE #2	40	1.8%	0.825	4.2%	49	2.3%	1.00	4.8%	89	2.06%	1.83	4.54%	1.90%	2.06%	0.2%
Plastic Film	88	4.1%	1.750	9.0%	142	6.6%	2.65	12.7%	230	5.32%	4.40	10.94%	4.82%	5.32%	0.5%
Other Plastic	157	7.3%	2.075	10.7%	176	8.1%	2.70	13.0%	333	7.70%	4.78	11.87%	7.99%	7.70%	-0.3%
TOTAL PLASTIC	359	16.6%	5.675	29.2%	419	19.4%	7.23	34.7%	778	17.99%	12.90	32.07%	17.25%	17.99%	0.7%
Food Waste	407	18.8%	2.150	11.1%	394	18.2%	1.68	8.1%	801	18.52%	3.83	9.51%	17.22%	18.52%	1.3%
Wood Waste	6	0.3%	0.025	0.1%	36	1.7%	0.15	0.7%	42	0.97%	0.18	0.44%	1.19%	0.97%	-0.2%
Textiles	167	7.7%	0.950	4.9%	84	3.9%	0.50	2.4%	251	5.80%	1.45	3.60%	4.73%	5.80%	1.1%
Diapers	185	8.5%	1.025	5.3%	131	6.1%	0.50	2.4%	316	7.31%	1.53	3.79%	5.48%	7.31%	1.8%
Other Organics	13	0.6%	0.100	0.5%	29	1.3%	0.25	1.2%	42	0.97%	0.35	0.87%	2.97%	0.97%	-2.0%
TOTAL ORGANICS	778	36.0%	4.250	21.9%	674	31.2%	3.08	14.8%	1,452	33.57%	7.33	18.21%	31.59%	33.57%	2.0%
Fines	12	0.6%	0.075	0.4%	22	1.0%	0.20	1.0%	34	0.79%	0.28	0.68%	0.93%	0.79%	-0.1%
Other Inorganics	76	3.5%	0.475	2.4%	76	3.5%	0.35	1.7%	152	3.51%	0.83	2.05%	3.21%	3.51%	0.3%
TOTAL INORGANICS	88	4.1%	0.550	2.8%	98	4.5%	0.55	2.6%	186	4.30%	1.10	2.73%	4.14%	4.30%	0.2%
HHW	7	0.3%	0.025	0.1%	30	1.4%	0.20	1.0%	37	0.86%	0.23	0.56%	0.92%	0.86%	0.9%
Electronic Waste	12	0.6%	0.025	0.1%	7	0.3%	0.08	0.4%	19	0.44%	0.10	0.25%	0.99%	0.44%	0.4%
TOTAL SPECIAL WASTE	19	0.9%	0.050	0.3%	37	1.7%	0.28	1.3%	56	1.29%	0.33	0.81%	1.91%	1.29%	-0.6%
TOTAL COMPOSITION	2,164	100%	19.4	100%	2,161	100%	20.80	100%	4,325	100%	40.23	100%	100%	100%	0%

Chart 8.3 - Pemiscot Co. Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

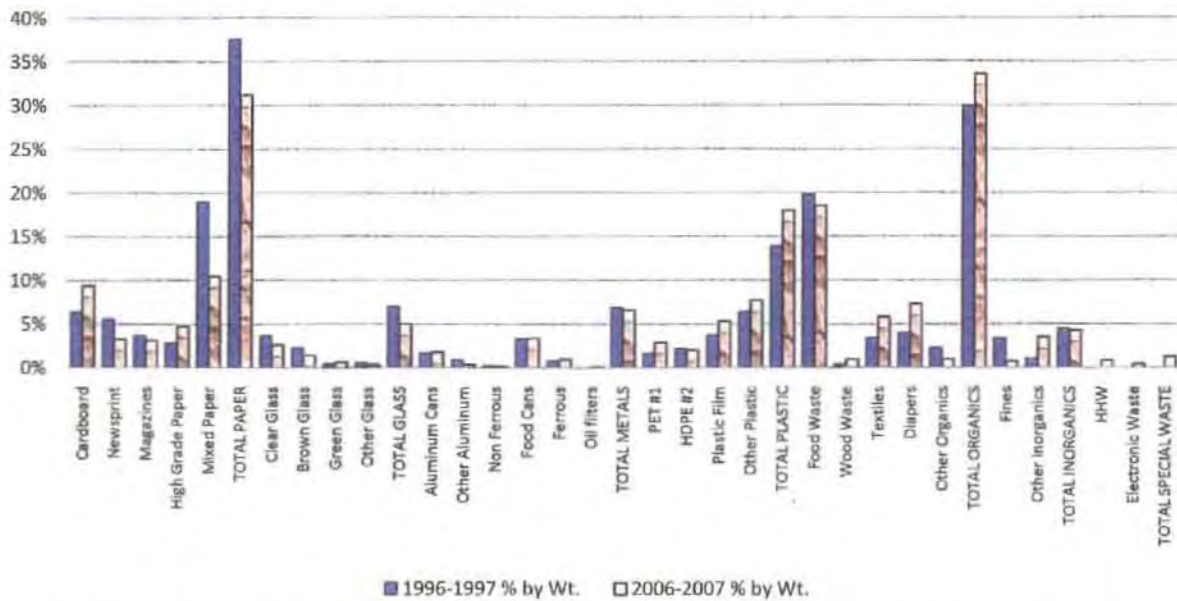


Chart 8.4 - Pemiscot Co. 2006-2007 Results vs. 2006-2007 Sort Average

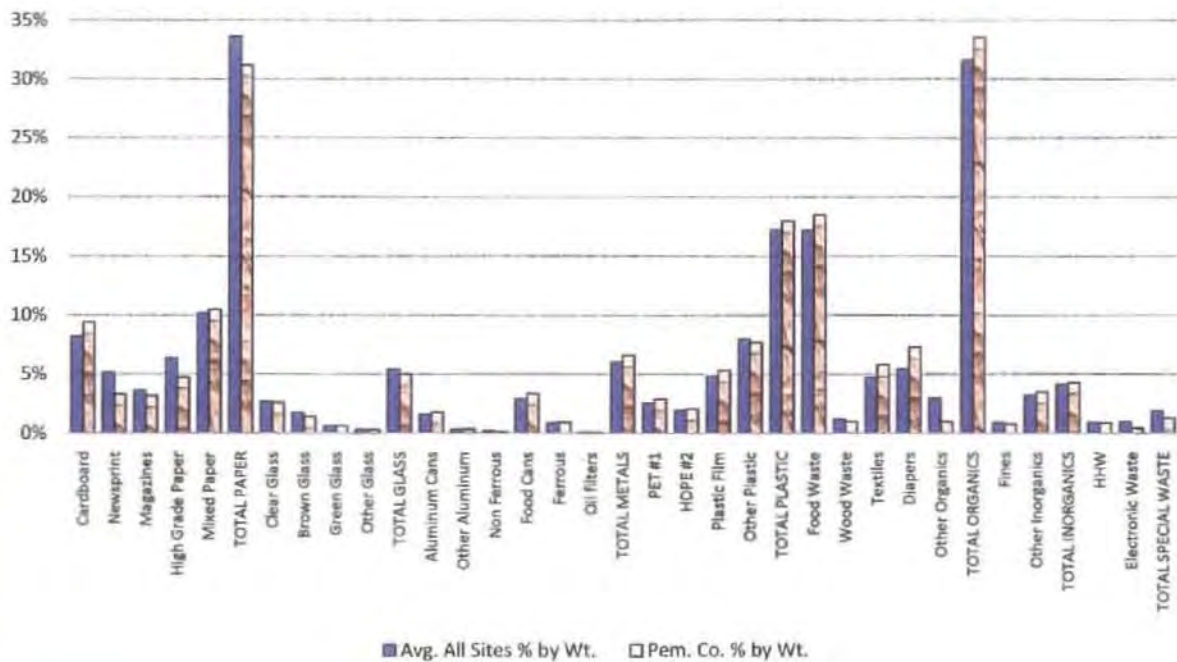


Table 11.6 - Special Waste Sorted at Pemiscot County Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)		1
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	2	
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller		
Electronic Toy or Game	1	3
Computer Hard Drive		1
Computer Monitor		
Computer Keyboard		
Computer Mouse	1	
Computer Printer		
Toner Cartridge		
Telephone/Answering Machine	1	
Cell Phones, Chargers	1	4
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes		few
Paint, Thinner, etc.		1
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	4
Oil Filters		
Household Cleaners		
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellant Spray, Powder, Poison, etc.	2	1
Over The Counter & Prescription Medicine	several	several inc. vet vaccines
Beauty & Hygiene Products	1	1
Disposable Razors	several	several
Alkaline Batteries	13	19
Lithium & Other Batteries		
Smoke Alarm		
Other	shotgun ammun., butane lighter	2 partial cans R134 refrigerant

Weight of Batteries Reported by RBRC

23 oz.

21.8 oz.

Appendix 9

Phelps County Transfer Station

APPENDIX 9 – PHELPS COUNTY TRANSFER STATION

Phelps County Transfer Station is located in Rolla just off I-44 which is in Solid Waste Management District K. Rolla is home to one of the University of Missouri campuses.

Demographics:

	<u>Rolla</u>	<u>Phelps County</u>
Population	16,540	39,825
Number of Households	6,544	15,677
Average Household Size	2.21	2.38
Median Household Income	\$26,479	\$29,378

Solid Waste Collection

The city of Rolla provides refuse and recycling collection within city limits. Waste Corporation of America is the primary collection provider outside Rolla city limits in the Phelps County Transfer Station service area. Several other private haulers utilize the facility as well.

Solid Waste Disposal

The Phelps County Transfer Station is owned by the city of Rolla and operated by Waste Corporation of America. Waste is bulked and then transferred to the Hartville Landfill. Current tipping fees are \$40.63 per ton and approximately 200 tons per day are processed through the facility.

Waste Reduction, Recycling, and Recovery Programs

The city of Rolla operates a curbside recycling program as well as a recycling facility where drop-offs are accepted. The nearby city of St. James collects recycling curbside weekly and hauls the material to the Rolla recycling facility. The facility also processes recycling brought in from other nearby communities. Over 2,685 tons of recyclables were processed at the facility in 2006.

Phelps County Transfer Station Sort Results

Sampling information and composition results are listed in Tables 9.1 through 9.6 and exhibited in Charts 9.1 through 9.4. Yard waste was noted in one of the samples during the spring sort. Nothing else extraordinary was noted. Comparing the results to the 1996-1997 WCS, there was very little variance among categories, with the greatest being 1.6% more Plastics than in the previous study.

The Phelps County results were also very near the overall 2006-2007 average with the greatest variance being in Plastics (1.3% less) and Organics (1.3% more). When compared to the other sites sampled, the highest percentage by weight in High Grade Paper(9.21) was at Phelps County, while the lowest percentage by weight in PET #1 Plastic(1.81) and the lowest percentage by volume in PET #1 Plastic(3.29), Other Plastic(10.98) and Total Plastic(28.53) were also at this facility.

Table 9.1 - Sample Summary - Phelps County Transfer Station

Fall 2006	Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location
1	191	1.5	95%	5%	Salem/Bunker
2	216	1.8	95%	5%	Vida/South of Rolla
3	198	1.5	90%	10%	Lenox/South of Rolla
4	218	2.2	80%	20%	St. James
5	243	2.1	90%	10%	Rural South of Rolla
6	227	2.1	95%	5%	Rural NW of Rolla
7	260	2.0	90%	10%	Rolla
8	302	2.2	95%	5%	Rolla
Total Fall	1855	15.3			
Average	232	1.9	91%	9%	

Spring 2007	Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location
1	332	2.4	80%	20%	St. James/School & Soldier's Home
2	235	2.2	70%	30%	St. James
3	298	2.3	80%	20%	Leasburg/Bourbon
4	279	2.3	90%	10%	Rural Belle & High Gate
5	223	1.8	90%	10%	Rural Salem
6	250	2.0	95%	5%	Rolla
7	358	2.4	80%	20%	St. James
8	306	2.9	90%	10%	Rolla
Total Spring	2281	18.2			
Average	285	2.3	84%	16%	

Site Total	4136	33.5			
Average	259	2.1	88%	12%	

Estimated Waste (lbs.) Accepted at Site During Sample Periods					1,200,000
---	--	--	--	--	-----------

Table 9.2 - Phelps County Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	149	18.6	8.0%	2.05	0.256	13.4%
Newsprint	51	6.4	2.7%	0.3	0.038	2.0%
Magazines	50	6.3	2.7%	0.25	0.031	1.6%
High Grade Paper	107	13.4	5.8%	1	0.125	6.5%
Mixed Paper	173	21.6	9.3%	1.55	0.194	10.1%
PAPER TOTALS	530	66.3	28.6%	5.15	0.644	33.6%
Clear Glass	43	5.4	2.3%	0.2	0.025	1.3%
Brown Glass	54	6.8	2.9%	0.25	0.031	1.6%
Green Glass	17	2.1	0.9%	0.125	0.016	0.8%
Other Glass	4	0.5	0.2%	0.025	0.003	0.2%
GLASS TOTALS	118	14.8	6.4%	0.6	0.075	3.9%
Aluminum Cans	33	4.1	1.8%	0.475	0.059	3.1%
Other Aluminum	11	1.4	0.6%	0.15	0.019	1.0%
Non Ferrous	14	1.8	0.8%	0.125	0.016	0.8%
Food Cans	61	7.6	3.3%	0.4	0.050	2.6%
Ferrous	23	2.9	1.2%	0.15	0.019	1.0%
Oil filters (one)	2	0.3	0.1%	0.025	0.003	0.2%
METAL TOTALS	144	18.0	7.6%	1.325	0.166	8.6%
PET #1	36	4.5	1.9%	0.525	0.066	3.4%
HDPE #2	29	3.6	1.6%	0.5	0.063	3.3%
Plastic Film	91	11.4	4.9%	1.55	0.194	10.1%
Other Plastic	146	18.3	7.9%	1.875	0.234	12.2%
PLASTIC TOTALS	302	37.8	16.3%	4.45	0.556	29.0%
Food Waste	275	34.4	14.8%	1	0.125	6.5%
Wood Waste	74	9.3	4.0%	0.3	0.038	2.0%
Textiles	64	8.0	3.5%	0.425	0.053	2.8%
Diapers	109	13.6	5.9%	0.575	0.072	3.8%
Other Organics	95	11.9	5.1%	0.625	0.078	4.1%
ORGANIC TOTALS	617	77.1	33.3%	2.925	0.366	19.1%
Fines	27	3.4	1.5%	0.2	0.025	1.3%
Other Inorganics	66	8.3	3.6%	0.45	0.056	2.9%
INORGANIC TOTALS	93	11.6	5.0%	0.65	0.081	4.2%
HHW	35	4.4	1.9%	0.15	0.019	1.0%
Electronic Waste	16	2.0	0.9%	0.075	0.009	0.5%
SPECIAL WASTE TOTALS	51	6.4	2.7%	0.225	0.028	1.5%
TOTAL	1855	231.9	100%	15.325	1.916	100%

Table 9.3 - Phelps County Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	156	19.5	6.8%	2.125	0.266	11.7%
Newsprint	92	11.5	4.0%	0.675	0.084	3.7%
Magazines	110	13.8	4.8%	0.4	0.050	2.2%
High Grade Paper	274	34.3	12.0%	1.725	0.216	9.5%
Mixed Paper	234	29.3	10.3%	2.2	0.275	12.1%
PAPER TOTALS	866	108.3	38.0%	7.125	0.891	39.3%
Clear Glass	66	8.3	2.9%	0.25	0.031	1.4%
Brown Glass	27	3.4	1.2%	0.2	0.025	1.1%
Green Glass	1	0.1	0.0%	0.025	0.003	0.1%
Other Glass	1	0.1	0.0%	0.025	0.003	0.1%
GLASS TOTALS	95	11.9	4.2%	0.5	0.063	2.8%
Aluminum Cans	29	3.6	1.3%	0.35	0.044	1.9%
Other Aluminum	2	0.3	0.1%	0.05	0.006	0.3%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	64	8.0	2.8%	0.425	0.053	2.3%
Ferrous	13	1.6	0.6%	0.125	0.016	0.7%
Oil filters (one)	2	0.3	0.1%	0.05	0.006	0.3%
METAL TOTALS	110	13.8	4.8%	1	0.125	5.5%
PET #1	39	4.9	1.7%	0.575	0.072	3.2%
HDPE #2	47	5.9	2.1%	0.825	0.103	4.5%
Plastic Film	122	15.3	5.3%	1.9	0.238	10.5%
Other Plastic	150	18.8	6.6%	1.8	0.225	9.9%
PLASTIC TOTALS	358	44.8	15.7%	5.1	0.638	28.1%
Food Waste	450	56.3	19.7%	1.975	0.247	10.9%
Wood Waste	10	1.3	0.4%	0.075	0.009	0.4%
Textiles	112	14.0	4.9%	0.625	0.078	3.4%
Diapers	88	11.0	3.9%	0.45	0.056	2.5%
Other Organics	82	10.3	3.6%	0.625	0.078	3.4%
ORGANIC TOTALS	742	92.8	32.5%	3.75	0.469	20.7%
Fines	12	1.5	0.5%	0.175	0.022	1.0%
Other Inorganics	60	7.5	2.6%	0.35	0.044	1.9%
INORGANIC TOTALS	72	9.0	3.2%	0.525	0.066	2.9%
HHW	21	2.6	0.9%	0.075	0.009	0.4%
Electronic Waste	17	2.1	0.7%	0.075	0.009	0.4%
SPECIAL WASTE TOTALS	38	4.8	1.7%	0.15	0.019	0.8%
TOTAL	2281	285.1	100%	18.15	2.269	100%

Chart 9.1 - Phelps Co. Results Fall 2006 vs. Spring 2007
Percentage by Weight

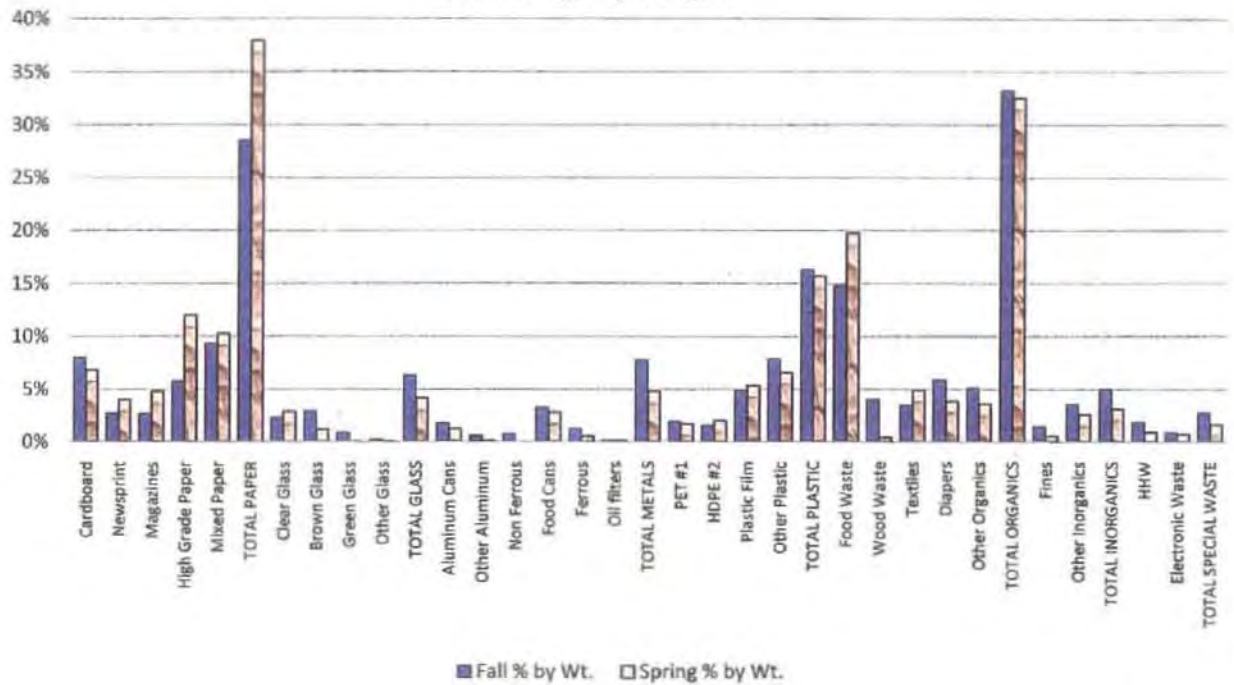
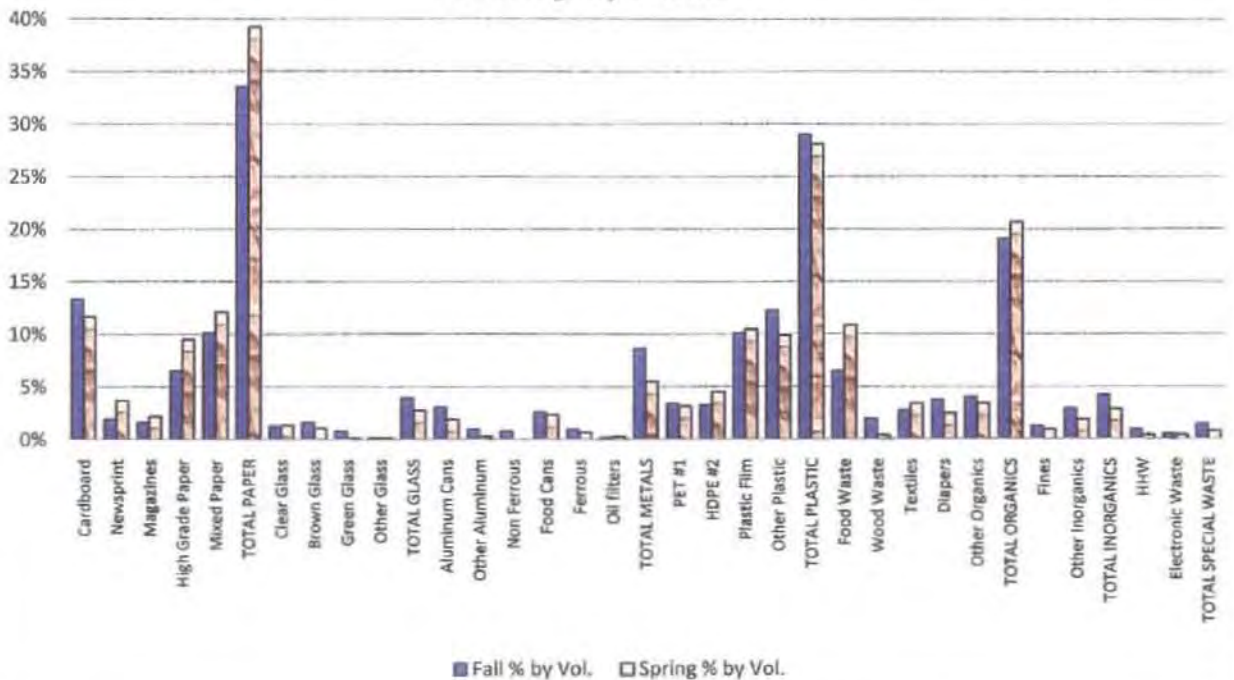


Chart 9.2 - Phelps Co. Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 9.4 - Waste Composition Summary and Comparison
Phelps County Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 10/31-11/1/06				Spring Sort - 4/5-4/6/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	149	8.0%	2.050	13%	156	6.8%	2.13	11.7%	305	7.37%	4.18	12.47%	6.9%	7.4%	0.5%
Newsprint	51	2.7%	0.300	2%	92	4.0%	0.68	3.7%	143	3.46%	0.98	2.91%	7.4%	3.5%	-3.9%
Magazines	50	2.7%	0.250	2%	110	4.8%	0.40	2.2%	160	3.87%	0.65	1.94%	3.8%	3.9%	0.1%
High Grade Paper	107	5.8%	1.000	7%	274	12.0%	1.73	9.5%	381	9.21%	2.73	8.14%	4.2%	9.2%	5.0%
Mixed Paper	173	9.3%	1.550	10%	234	10.3%	2.20	12.1%	407	9.84%	3.75	11.20%	12.9%	9.8%	-3.1%
TOTAL PAPER	530	28.6%	5.150	34%	866	38.0%	7.13	39.3%	1,396	33.75%	12.28	36.67%	35.2%	33.8%	-1.4%
Clear Glass	43	2.3%	0.200	1%	66	2.9%	0.25	1.4%	109	2.64%	0.45	1.34%	3.4%	2.6%	-0.8%
Brown Glass	54	2.9%	0.250	2%	27	1.2%	0.20	1.1%	81	1.96%	0.45	1.34%	1.5%	2.0%	0.5%
Green Glass	17	0.9%	0.125	1%	1	0.0%	0.03	0.1%	18	0.44%	0.15	0.45%	0.4%	0.4%	0.0%
Other Glass	4	0.2%	0.025	0%	1	0.0%	0.03	0.1%	5	0.12%	0.05	0.15%	0.6%	0.1%	-0.5%
TOTAL GLASS	118	6.4%	0.600	4%	95	4.2%	0.50	2.8%	213	5.15%	1.10	3.29%	5.9%	5.1%	-0.8%
Aluminum Cans	33	1.8%	0.475	3%	29	1.3%	0.35	1.9%	62	1.50%	0.83	2.46%	1.3%	1.5%	0.2%
Other Aluminum	11	0.6%	0.150	1%	2	0.1%	0.05	0.3%	13	0.31%	0.20	0.60%	0.7%	0.3%	-0.4%
Non Ferrous	14	0.8%	0.125	1%	-	0.0%	-	0.0%	14	0.34%	0.13	0.37%	0.2%	0.3%	0.1%
Food Cans	61	3.3%	0.400	3%	64	2.8%	0.43	2.3%	125	3.02%	0.83	2.46%	3.4%	3.0%	-0.4%
Ferrous	23	1.2%	0.150	1%	13	0.6%	0.13	0.7%	36	0.87%	0.28	0.82%	1.1%	0.9%	-0.2%
Oil filters	2	0.1%	0.025	0%	2	0.1%	0.05	0.3%	4	0.10%	0.08	0.22%	0.1%	0.1%	0.0%
TOTAL METALS	144	7.8%	1.325	9%	110	4.8%	1.00	5.5%	254	6.14%	2.33	6.95%	6.8%	6.1%	-0.7%
PET #1	36	1.9%	0.525	3%	39	1.7%	0.58	3.2%	75	1.81%	1.10	3.29%	1.6%	1.8%	0.2%
HDPE #2	29	1.6%	0.500	3%	47	2.1%	0.83	4.5%	76	1.84%	1.33	3.96%	2.0%	1.8%	-0.2%
Plastic Film	91	4.9%	1.550	10%	122	5.3%	1.90	10.5%	213	5.15%	3.45	10.31%	4.0%	5.1%	1.1%
Other Plastic	146	7.9%	1.875	12%	150	6.6%	1.80	9.9%	296	7.16%	3.68	10.98%	6.8%	7.2%	0.4%
TOTAL PLASTIC	302	16.3%	4.450	29%	358	15.7%	5.10	28.1%	660	15.96%	9.55	28.53%	14.4%	16.0%	1.6%
Food Waste	275	14.8%	1.000	7%	450	19.7%	1.98	10.9%	725	17.53%	2.98	8.89%	22.1%	17.5%	-4.6%
Wood Waste	74	4.0%	0.300	2%	10	0.4%	0.08	0.4%	84	2.03%	0.38	1.12%	0.6%	2.0%	1.4%
Textiles	64	3.5%	0.425	3%	112	4.9%	0.63	3.4%	176	4.26%	1.05	3.14%	3.9%	4.3%	0.4%
Diapers	109	5.9%	0.575	4%	88	3.9%	0.45	2.5%	197	4.76%	1.03	3.06%	4.2%	4.8%	0.6%
Other Organics	95	5.1%	0.825	4%	82	3.6%	0.63	3.4%	177	4.28%	1.25	3.73%	3.0%	4.3%	1.3%
TOTAL ORGANICS	617	33.3%	2.925	19%	742	32.5%	3.75	20.7%	1,359	32.86%	6.68	19.94%	33.8%	32.9%	-0.9%
Fines	27	1.5%	0.200	1%	12	0.5%	0.18	1.0%	39	0.94%	0.38	1.12%	2.3%	0.9%	-1.4%
Other Inorganics	66	3.6%	0.450	3%	60	2.6%	0.35	1.9%	126	3.05%	0.80	2.39%	0.8%	3.0%	2.2%
TOTAL INORGANICS	93	5.0%	0.650	4%	72	3.2%	0.53	2.9%	165	3.99%	1.18	3.51%	3.1%	4.0%	0.9%
HW	35	1.9%	0.150	1%	21	0.9%	0.08	0.4%	56	1.35%	0.23	0.67%	n/a	1.4%	1.4%
Electronic Waste	16	0.9%	0.075	0%	17	0.7%	0.08	0.4%	33	0.80%	0.15	0.45%	n/a	0.8%	0.8%
TOTAL SPECIAL WASTE	51	2.7%	0.225	1%	38	1.7%	0.15	0.8%	89	2.15%	0.38	1.12%		2.2%	2.2%
TOTAL COMPOSITION	1,855	100%	15.33	100%	2,281	100%	18.15	100%	4,136	100%	33.48	100%	100%	100%	0%

**Table 9.5 - Waste Composition Summary and Comparison Phelps County Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 10/31-11/1/06				Spring Sort - 4/5-4/6/07				Total 2006-2007 Results for Site				Avg. All Sites	Phelps Co.	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	149	8.0%	2.050	13%	156	6.8%	2.13	11.7%	305	7.37%	4.18	12.47%	8.20%	7.37%	-0.8%
Newsprint	51	2.7%	0.300	2%	92	4.0%	0.68	3.7%	143	3.46%	0.98	2.91%	5.17%	3.46%	-1.7%
Magazines	50	2.7%	0.250	2%	110	4.8%	0.40	2.2%	160	3.87%	0.65	1.94%	3.66%	3.87%	0.2%
High Grade Paper	107	5.8%	1.000	7%	274	12.0%	1.73	9.5%	381	9.21%	2.73	8.14%	6.40%	9.21%	2.8%
Mixed Paper	173	9.3%	1.550	10%	234	10.3%	2.20	12.1%	407	9.84%	3.75	11.20%	10.20%	9.84%	-0.4%
TOTAL PAPER	530	28.6%	5.150	34%	866	38.0%	7.13	39.3%	1,396	33.75%	12.28	36.67%	33.63%	33.75%	0.1%
Clear Glass	43	2.3%	0.200	1%	66	2.9%	0.25	1.4%	109	2.64%	0.45	1.34%	2.71%	2.64%	-0.1%
Brown Glass	54	2.9%	0.250	2%	27	1.2%	0.20	1.1%	81	1.96%	0.45	1.34%	1.77%	1.96%	0.2%
Green Glass	17	0.9%	0.125	1%	1	0.0%	0.03	0.1%	18	0.44%	0.15	0.45%	0.63%	0.44%	-0.2%
Other Glass	4	0.2%	0.025	0%	1	0.0%	0.03	0.1%	5	0.12%	0.05	0.15%	0.32%	0.12%	-0.2%
TOTAL GLASS	118	6.4%	0.600	4%	95	4.2%	0.50	2.8%	213	5.15%	1.10	3.29%	5.44%	5.15%	-0.3%
Aluminum Cans	33	1.8%	0.475	3%	29	1.3%	0.35	1.9%	62	1.50%	0.83	2.46%	1.59%	1.50%	-0.1%
Other Aluminum	11	0.6%	0.150	1%	2	0.1%	0.05	0.3%	13	0.31%	0.20	0.60%	0.34%	0.31%	0.0%
Non Ferrous	14	0.8%	0.125	1%	-	0.0%	-	0.0%	14	0.34%	0.13	0.37%	0.23%	0.34%	0.1%
Food Cans	61	3.3%	0.400	3%	64	2.8%	0.43	2.3%	125	3.02%	0.83	2.46%	2.93%	3.02%	0.1%
Ferrous	23	1.2%	0.150	1%	13	0.6%	0.13	0.7%	36	0.87%	0.28	0.82%	0.87%	0.87%	0.0%
Oil filters	2	0.1%	0.025	0%	2	0.1%	0.05	0.3%	4	0.10%	0.08	0.22%	0.08%	0.10%	0.0%
TOTAL METALS	144	7.8%	1.325	9%	110	4.8%	1.00	5.5%	264	6.14%	2.33	6.95%	6.04%	6.14%	0.1%
PET #1	36	1.9%	0.525	3%	39	1.7%	0.58	3.2%	75	1.81%	1.10	3.29%	2.55%	1.81%	-0.7%
HDPE #2	29	1.6%	0.500	3%	47	2.1%	0.83	4.5%	76	1.84%	1.33	3.96%	1.90%	1.84%	-0.1%
Plastic Film	91	4.9%	1.550	10%	122	5.3%	1.90	10.5%	213	5.15%	3.45	10.31%	4.82%	5.15%	0.3%
Other Plastic	146	7.9%	1.875	12%	150	6.6%	1.80	9.9%	296	7.16%	3.68	10.98%	7.99%	7.16%	-0.8%
TOTAL PLASTIC	302	16.3%	4.450	29%	358	15.7%	5.10	28.1%	660	15.96%	9.55	28.53%	17.25%	15.96%	-1.3%
Food Waste	275	14.8%	1.000	7%	450	19.7%	1.98	10.9%	725	17.53%	2.98	8.89%	17.22%	17.53%	0.3%
Wood Waste	74	4.0%	0.300	2%	10	0.4%	0.08	0.4%	84	2.03%	0.38	1.12%	1.19%	2.03%	0.8%
Textiles	64	3.5%	0.425	3%	112	4.9%	0.63	3.4%	176	4.26%	1.05	3.14%	4.73%	4.26%	-0.5%
Diapers	109	5.9%	0.575	4%	88	3.9%	0.45	2.5%	197	4.76%	1.03	3.06%	5.48%	4.76%	-0.7%
Other Organics	95	5.1%	0.625	4%	82	3.6%	0.63	3.4%	177	4.28%	1.25	3.73%	2.97%	4.28%	1.3%
TOTAL ORGANICS	617	33.3%	2.925	19%	742	32.5%	3.75	20.7%	1,359	32.86%	6.68	19.94%	31.59%	32.86%	1.3%
Fines	27	1.5%	0.200	1%	12	0.5%	0.18	1.0%	39	0.94%	0.38	1.12%	0.93%	0.94%	0.0%
Other Inorganics	66	3.6%	0.450	3%	60	2.6%	0.35	1.9%	126	3.05%	0.80	2.39%	3.21%	3.05%	-0.2%
TOTAL INORGANICS	93	5.0%	0.650	4%	72	3.2%	0.53	2.9%	165	3.99%	1.18	3.51%	4.14%	3.99%	-0.2%
HHW	35	1.9%	0.150	1%	21	0.9%	0.08	0.4%	56	1.35%	0.23	0.67%	0.92%	1.35%	0.4%
Electronic Waste	16	0.9%	0.075	0%	17	0.7%	0.08	0.4%	33	0.80%	0.15	0.45%	0.99%	0.80%	-0.2%
TOTAL SPECIAL WASTE	51	2.7%	0.225	1%	38	1.7%	0.15	0.8%	89	2.15%	0.38	1.12%	1.91%	2.15%	0.2%
TOTAL COMPOSITION	1,855	100%	15.33	100%	2,281	100%	18.15	100%	4,138	100%	33.48	100%	100%	100%	0%

Chart 9.3 - Phelps Co. Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

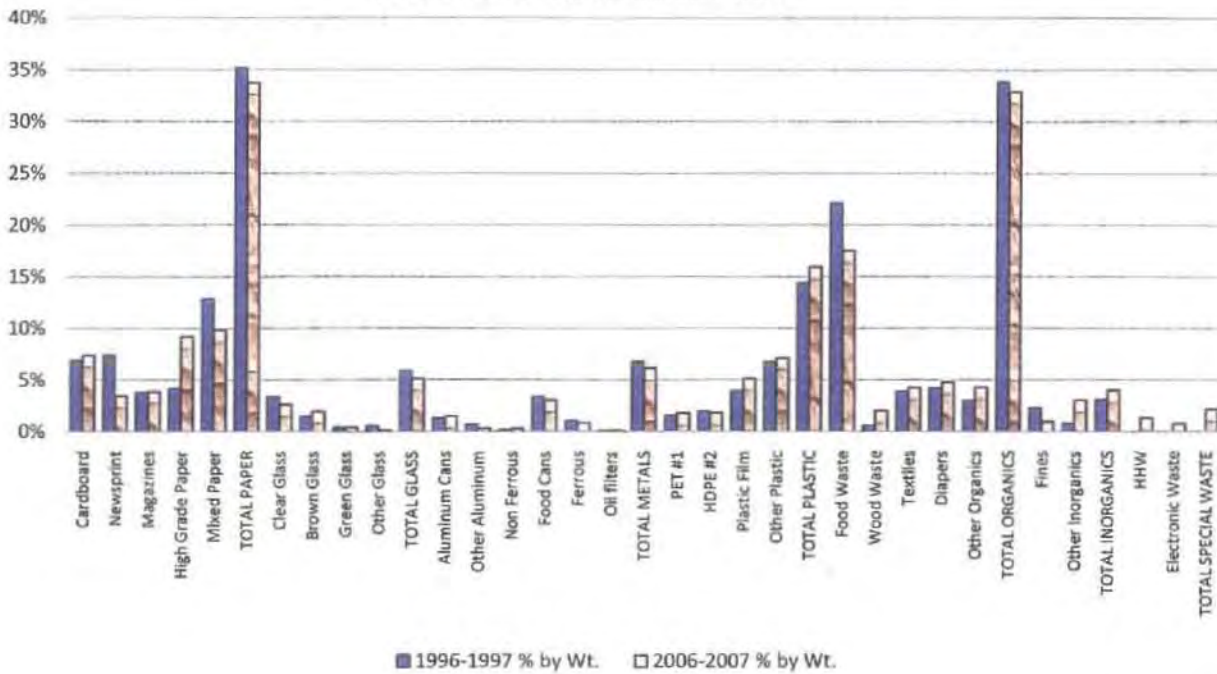


Chart 9.4 - Phelps Co. Results 2006-2007 vs. 2006-2007 Sort Average

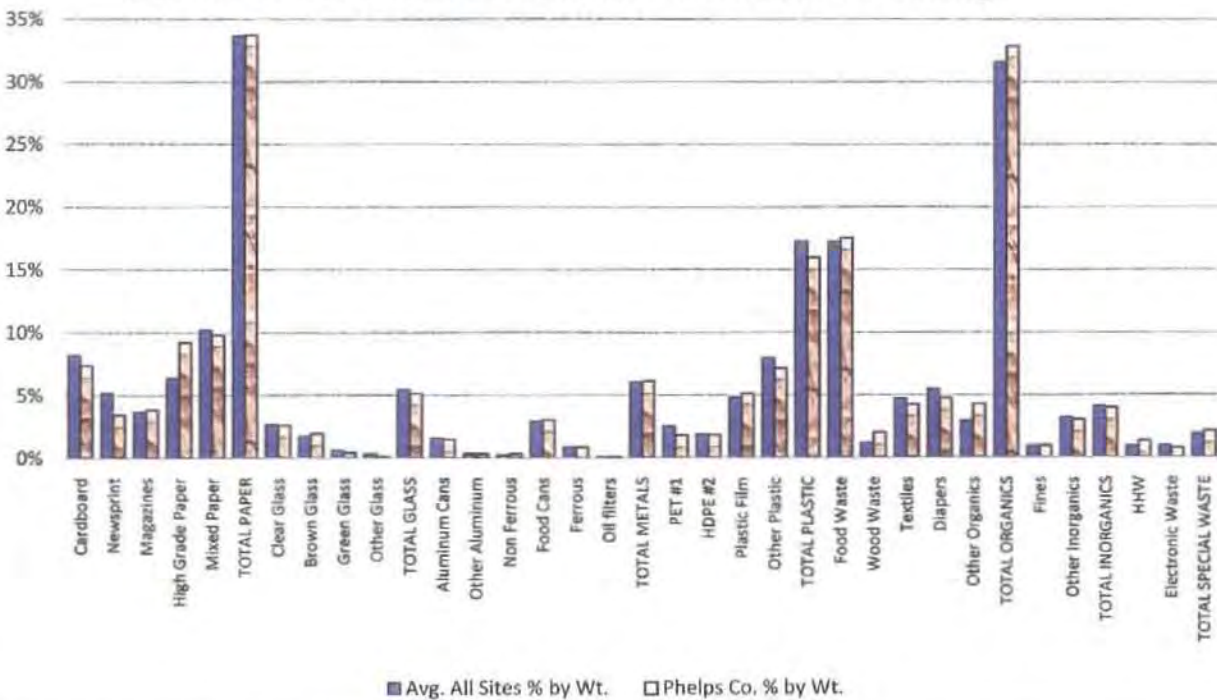


Table 9.6 - Special Waste Sorted at Phelps County Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)	1	1
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	2	
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller		
Electronic Toy or Game	4	1
Computer Hard Drive		
Computer Monitor		
Computer Keyboard		
Computer Mouse	2	
Computer Printer		1
Toner Cartridge		1
Telephone/Answering Machine		
Cell Phones, Chargers	2	1
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	1 milk jug full	
Paint, Thinner, etc.	2	1
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	
Oil Filters		
Household Cleaners	7	
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellent Spray, Powder, Poison, etc.	2	2
Over The Counter & Prescription Medicine	24	1
Beauty & Hygiene Products	4	2
Disposable Razors	13	
Alkaline Batteries	32	12
Lithium & Other Batteries		
Smoke Alarm	1	
Other		cigarette lighter

Weight of Batteries Reported by RBRC

71 oz.

13.6 oz.

Appendix 10

Reeds Spring Transfer Station

APPENDIX 10 – REEDS SPRING TRANSFER STATION

Reeds Spring Transfer Station is located south of Springfield and northwest of Branson off Highway 13. Branson is the closest center of activity to the Reeds Spring Transfer Station with a population of less than 10,000, yet is an entertainment hub for hundreds of thousands of tourists per year. Reeds Spring Transfer Station is in Stone County which is part of Solid Waste Management District N.

Demographics:

	<u>Reeds Spring</u>	<u>Stone County</u>
Population	459	28,658
Number of Households	193	11,824
Average Household Size	2.23	2.4
Median Household Income	\$25,982	\$32,637

Solid Waste Collection

Several private waste haulers collect material in the service area of the Reeds Spring Transfer Station. Recycling collection is provided through drop-off containers.

Solid Waste Disposal

The Reeds Spring Transfer station is owned and operated by Allied Waste, Inc. Over 77,302 tons of waste was processed through the facility in calendar year 2006. The current tipping fee is \$49 per ton. The waste is bulked then transported to the Prairie View Landfill.

Waste Reduction, Recycling, and Recovery Programs

The city of Branson has operated a recycling center since 1993. It serves as a drop-off center. Also, since 2000, 8 drop-off trailers have been funded through the district and placed throughout the area of Taney and Stone counties. These trailers are brought to Branson's facility to deposit recyclables for processing. In 2006, the recycling center received over 700 tons of material.

Branson also operates a yard waste drop-off center.

Reeds Spring Transfer Station Sort Results

Sampling information and composition results are listed in Tables 10.1 through 10.6 and exhibited in Charts 10.1 through 10.4. Four of the eight spring sort samples were noted as having a lot of clear glass beer bottles. The samples came from different service providers and service areas, so no correlation was determined. When comparing the Reeds Spring results with the 1996-1997 WCS, the Transfer Facility currently has 6.3% less Paper and 7.9% more Organics in the waste stream than during the previous study.

When comparing to the overall 2006-2007 sort average, Reeds Spring had the greatest variances in Glass (1.7% more) and Organics (2.1% less). Compared to the other sites sampled in the 2006-2007 WCS, Reeds Spring had the highest percentage by weight in Clear Glass(3.94) and Total Glass(7.18) while booking the highest percentage by volume in Total Paper(40.64), Clear Glass(2.08) and Food Waste(9.63).

Table 10.1 - Sample Summary - Reeds Spring Transfer Station

Fall 2006		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	225	2.3	50%	50%	Kimberling City	
2	276	2.5	50%	50%	Galena	
3	229	1.9	55%	45%	Shell Knob	
4	311	2.1	50%	50%	Branson	
5	251	2.3	50%	50%	Branson West	
6	286	2.5	50%	50%	Branson	
7	271	2.5	55%	45%	Hollister/Branson	
8	224	2.2	50%	50%	Branson	
Total Fall	2073	18.3				
Average	259	2.3	51%	49%		
Spring 2007		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	333	2.6	100%	0%	Galena	
2	287	2.6	90%	10%	Branson	
3	244	2.3	70%	30%	Forsyth	
4	347	2.5	70%	30%	Blue Eye area	
5	241	2.3	60%	40%	Branson	
6	195	2.3	70%	30%	Eureka Springs, Maryville AR	
7	282	2.3	60%	40%	Kimberling City	
8	257	2.6	60%	40%	Branson	
Total Spring	2186	19.4				
Average	273	2.4	73%	28%		
Site Total	4259	37.7				
Average	266	2.4	62%	38%		
Estimated Waste (lbs.) Accepted at Site During Sample Periods						1,520,695

Table 10.2 - Reeds Spring Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	169	21.1	8.2%	2.45	0.306	13.4%
Newsprint	133	16.6	6.4%	0.725	0.091	4.0%
Magazines	67	8.4	3.2%	0.35	0.044	1.9%
High Grade Paper	127	15.9	6.1%	1.175	0.147	6.4%
Mixed Paper	217	27.1	10.5%	2.55	0.319	14.0%
PAPER TOTALS	713	89.1	34.4%	7.25	0.906	39.7%
Clear Glass	63	7.9	3.0%	0.25	0.031	1.4%
Brown Glass	50	6.3	2.4%	0.225	0.028	1.2%
Green Glass	20	2.5	1.0%	0.15	0.019	0.8%
Other Glass	10	1.3	0.5%	0.075	0.009	0.4%
GLASS TOTALS	143	17.9	6.9%	0.7	0.088	3.8%
Aluminum Cans	39	4.9	1.9%	0.5	0.063	2.7%
Other Aluminum	14	1.8	0.7%	0.175	0.022	1.0%
Non Ferrous	7	0.9	0.3%	0.075	0.009	0.4%
Food Cans	74	9.3	3.6%	0.5	0.063	2.7%
Ferrous	16	2.0	0.8%	0.1	0.013	0.5%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	150	18.8	7.2%	1.35	0.169	7.4%
PET #1	49	6.1	2.4%	0.775	0.097	4.2%
HDPE #2	34	4.3	1.6%	0.6	0.075	3.3%
Plastic Film	116	14.5	5.6%	1.8	0.225	9.9%
Other Plastic	172	21.5	8.3%	2.2	0.275	12.1%
PLASTIC TOTALS	371	46.4	17.9%	5.375	0.672	29.5%
Food Waste	309	38.6	14.9%	1.525	0.191	8.4%
Wood Waste	23	2.9	1.1%	0.075	0.009	0.4%
Textiles	93	11.6	4.5%	0.575	0.072	3.2%
Diapers	127	15.9	6.1%	0.6	0.075	3.3%
Other Organics	38	4.8	1.8%	0.175	0.022	1.0%
ORGANIC TOTALS	590	73.8	28.5%	2.95	0.369	16.2%
Fines	16	2.0	0.8%	0.15	0.019	0.8%
Other Inorganics	52	6.5	2.5%	0.25	0.031	1.4%
INORGANIC TOTALS	68	8.5	3.3%	0.4	0.050	2.2%
HHW	28	3.5	1.4%	0.175	0.022	1.0%
Electronic Waste	10	1.3	0.5%	0.05	0.006	0.3%
SPECIAL WASTE TOTALS	38	4.8	1.8%	0.225	0.028	1.2%
TOTAL	2073	259.1	100%	18.25	2.281	100%

Table 10.3 - Reeds Spring Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	190	23.8	8.7%	2.9	0.363	14.9%
Newsprint	115	14.4	5.3%	0.8	0.100	4.1%
Magazines	93	11.6	4.3%	0.375	0.047	1.9%
High Grade Paper	190	23.8	8.7%	1.85	0.231	9.5%
Mixed Paper	155	19.4	7.1%	2.125	0.266	11.0%
PAPER TOTALS	743	92.9	34.0%	8.05	1.006	41.5%
Clear Glass	105	13.1	4.8%	0.525	0.066	2.7%
Brown Glass	46	5.8	2.1%	0.2	0.025	1.0%
Green Glass	2	0.3	0.1%	0.025	0.003	0.1%
Other Glass	10	1.3	0.5%	0.05	0.006	0.3%
GLASS TOTALS	163	20.4	7.5%	0.8	0.100	4.1%
Aluminum Cans	37	4.6	1.7%	0.45	0.056	2.3%
Other Aluminum	1	0.1	0.0%	0.025	0.003	0.1%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	63	7.9	2.9%	0.425	0.053	2.2%
Ferrous	1	0.1	0.0%	0.025	0.003	0.1%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	102	12.8	4.7%	0.925	0.116	4.8%
PET #1	65	8.1	3.0%	0.975	0.122	5.0%
HDPE #2	50	6.3	2.3%	0.875	0.109	4.5%
Plastic Film	108	13.5	4.9%	1.85	0.231	9.5%
Other Plastic	183	22.9	8.4%	2.1	0.263	10.8%
PLASTIC TOTALS	406	50.8	18.6%	5.8	0.725	29.9%
Food Waste	418	52.3	19.1%	2.1	0.263	10.8%
Wood Waste	24	3.0	1.1%	0.1	0.013	0.5%
Textiles	82	10.3	3.8%	0.375	0.047	1.9%
Diapers	109	13.6	5.0%	0.475	0.059	2.4%
Other Organics	35	4.4	1.6%	0.2	0.025	1.0%
ORGANIC TOTALS	668	83.5	30.6%	3.25	0.406	16.8%
Fines	12	1.5	0.5%	0.15	0.019	0.8%
Other Inorganics	54	6.8	2.5%	0.275	0.034	1.4%
INORGANIC TOTALS	66	8.3	3.0%	0.425	0.053	2.2%
HHW	20	2.5	0.9%	0.1	0.013	0.5%
Electronic Waste	18	2.3	0.8%	0.05	0.006	0.3%
SPECIAL WASTE TOTALS	38	4.8	1.7%	0.15	0.019	0.8%
TOTAL	2186	273.3	100%	19.4	2.425	100%

Chart 10.1 - Reeds Spring Results Fall 2006 vs. Spring 2007
Percentage by Weight

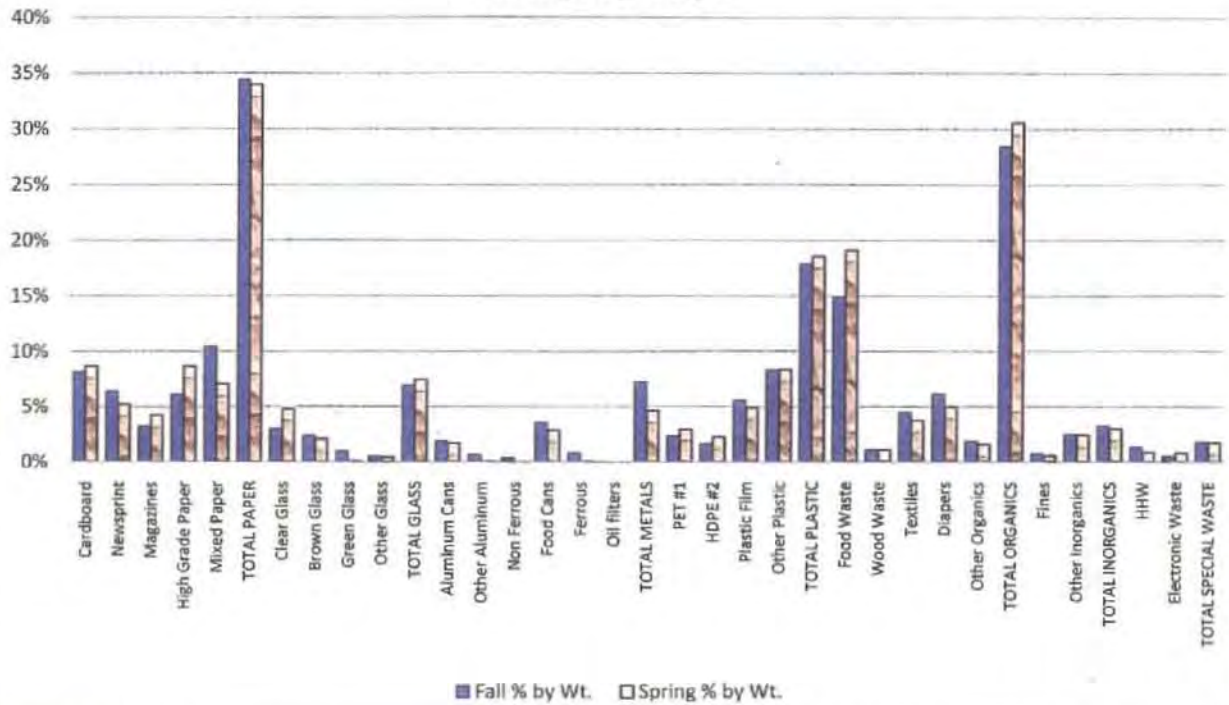
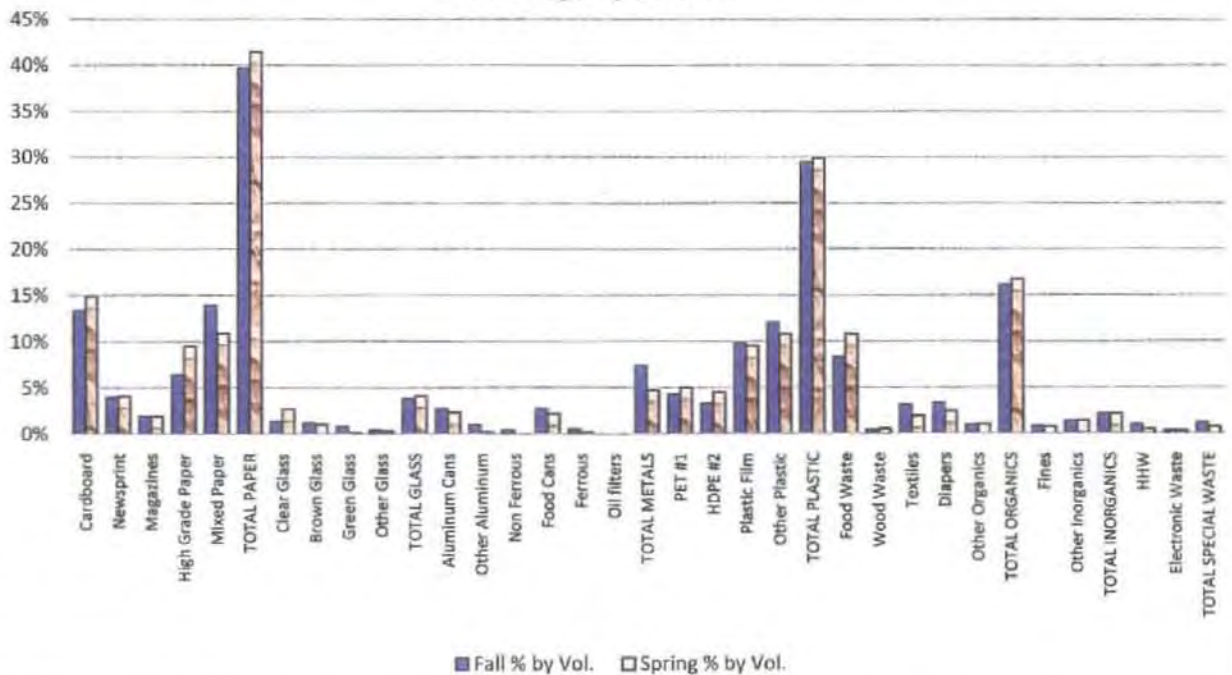


Chart 10.2 - Reeds Spring Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 10.4 - Waste Composition Summary and Comparison
Reeds Spring Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 11/6-11/7/06				Spring Sort - 4/9-4/10/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	169	8.2%	2.450	13%	190	8.7%	2.90	14.9%	359	8.43%	5.35	14.21%	7.7%	8.4%	0.7%
Newsprint	133	6.4%	0.725	4%	115	5.3%	0.80	4.1%	248	5.82%	1.53	4.05%	7.2%	5.8%	-1.4%
Magazines	67	3.2%	0.350	2%	93	4.3%	0.38	1.9%	160	3.76%	0.73	1.93%	3.5%	3.8%	0.3%
High Grade Paper	127	6.1%	1.175	6%	190	8.7%	1.85	9.5%	317	7.44%	3.03	8.03%	3.6%	7.4%	3.8%
Mixed Paper	217	10.5%	2.550	14%	155	7.1%	2.13	11.0%	372	8.73%	4.68	12.42%	18.5%	8.7%	-9.8%
TOTAL PAPER	713	34.4%	7.250	40%	743	34.0%	8.06	41.5%	1,456	34.19%	15.30	40.64%	40.5%	34.2%	-6.3%
Clear Glass	63	3.0%	0.250	1%	105	4.8%	0.53	2.7%	168	3.94%	0.78	2.06%	3.9%	3.9%	0.0%
Brown Glass	50	2.4%	0.225	1%	46	2.1%	0.20	1.0%	96	2.25%	0.43	1.13%	2.1%	2.3%	0.2%
Green Glass	20	1.0%	0.150	1%	2	0.1%	0.03	0.1%	22	0.52%	0.18	0.46%	0.5%	0.5%	0.0%
Other Glass	10	0.5%	0.075	0%	10	0.5%	0.05	0.3%	20	0.47%	0.13	0.33%	0.5%	0.5%	0.0%
TOTAL GLASS	143	6.9%	0.700	4%	163	7.5%	0.80	4.1%	306	7.18%	1.50	3.98%	7.0%	7.2%	0.2%
Aluminum Cans	39	1.9%	0.500	3%	37	1.7%	0.45	2.3%	76	1.78%	0.95	2.52%	1.8%	1.8%	0.0%
Other Aluminum	14	0.7%	0.175	1%	1	0.0%	0.03	0.1%	15	0.35%	0.20	0.53%	0.7%	0.4%	-0.3%
Non Ferrous	7	0.3%	0.075	0%	-	0.0%	-	0.0%	7	0.16%	0.08	0.20%	0.2%	0.2%	0.0%
Food Cans	74	3.6%	0.500	3%	63	2.9%	0.43	2.2%	137	3.22%	0.93	2.46%	2.9%	3.2%	0.3%
Ferrous	16	0.8%	0.100	1%	1	0.0%	0.03	0.1%	17	0.40%	0.13	0.33%	1.5%	0.4%	-1.1%
Oil filters	-	0.0%	-	0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.2%	0.0%	-0.2%
TOTAL METALS	150	7.2%	1.350	7%	102	4.7%	0.93	4.8%	252	5.92%	2.28	6.04%	7.3%	5.9%	-1.4%
PET #1	49	2.4%	0.775	4%	85	3.0%	0.98	5.0%	114	2.68%	1.75	4.65%	2.1%	2.7%	0.6%
HDPE #2	34	1.6%	0.600	3%	50	2.3%	0.88	4.5%	84	1.97%	1.48	3.92%	2.3%	2.0%	-0.3%
Plastic Film	116	5.6%	1.800	10%	108	4.9%	1.85	9.5%	224	5.26%	3.65	9.69%	4.5%	5.3%	0.8%
Other Plastic	172	8.3%	2.200	12%	183	8.4%	2.10	10.8%	355	8.34%	4.30	11.42%	8.4%	8.3%	-0.1%
TOTAL PLASTIC	371	17.9%	5.375	29%	406	18.6%	5.80	29.9%	777	18.24%	11.18	29.68%	17.3%	18.2%	0.9%
Food Waste	309	14.9%	1.525	8%	418	19.1%	2.10	10.8%	727	17.07%	3.63	9.63%	12.8%	17.1%	4.3%
Wood Waste	23	1.1%	0.075	0%	24	1.1%	0.10	0.5%	47	1.10%	0.18	0.46%	0.9%	1.1%	0.2%
Textiles	93	4.5%	0.575	3%	82	3.8%	0.38	1.9%	175	4.11%	0.95	2.52%	3.5%	4.1%	0.6%
Diapers	127	6.1%	0.600	3%	109	5.0%	0.48	2.4%	236	5.54%	1.08	2.86%	2.3%	5.5%	3.2%
Other Organics	38	1.8%	0.175	1%	35	1.6%	0.20	1.0%	73	1.71%	0.38	1.00%	2.1%	1.7%	-0.4%
TOTAL ORGANICS	590	28.5%	2.950	16%	668	30.6%	3.25	16.8%	1,258	29.64%	6.20	16.47%	21.6%	29.5%	7.9%
Fines	16	0.8%	0.150	1%	12	0.5%	0.15	0.8%	28	0.66%	0.30	0.80%	5.0%	0.7%	-4.3%
Other Inorganics	52	2.5%	0.250	1%	54	2.5%	0.28	1.4%	106	2.49%	0.53	1.39%	1.4%	2.5%	1.1%
TOTAL INORGANICS	68	3.3%	0.400	2%	66	3.0%	0.43	2.2%	134	3.15%	0.83	2.19%	6.4%	3.1%	-3.3%
HHW	28	1.4%	0.175	1%	20	0.9%	0.10	0.5%	48	1.13%	0.28	0.73%	n/a	1.1%	1.1%
Electronic Waste	10	0.5%	0.050	0%	18	0.8%	0.05	0.3%	28	0.66%	0.10	0.27%	n/a	0.7%	0.7%
TOTAL SPECIAL WASTE	38	1.8%	0.225	1%	38	1.7%	0.15	0.8%	76	1.78%	0.38	1.00%		1.8%	1.8%
TOTAL COMPOSITION	2,073	100%	18.3	100%	2,186	100%	19.4	100%	4,259	100%	37.7	100%	100%	100%	0%

**Table 10.5 - Waste Composition Summary and Comparison Reeds Spring Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 11/6-11/7/06				Spring Sort - 4/9-4/10/07				Total 2006-2007 Results for Site				Avg. All Sites	Reeds Spring	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	189	8.2%	2.450	13%	190	8.7%	2.90	14.9%	359	8.43%	5.35	14.21%	8.20%	8.43%	0.2%
Newsprint	133	6.4%	0.725	4%	115	5.3%	0.80	4.1%	248	5.82%	1.53	4.05%	5.17%	5.82%	0.7%
Magazines	67	3.2%	0.350	2%	93	4.3%	0.38	1.9%	160	3.76%	0.73	1.93%	3.66%	3.76%	0.1%
High Grade Paper	127	6.1%	1.175	6%	190	8.7%	1.85	9.5%	317	7.44%	3.03	8.03%	8.40%	7.44%	1.0%
Mixed Paper	217	10.5%	2.550	14%	155	7.1%	2.13	11.0%	372	8.73%	4.68	12.42%	10.20%	8.73%	-1.5%
TOTAL PAPER	713	34.4%	7.250	40%	743	34.0%	8.05	41.5%	1,456	34.19%	15.30	40.64%	33.63%	34.19%	0.6%
Clear Glass	63	3.0%	0.250	1%	105	4.8%	0.53	2.7%	168	3.94%	0.78	2.06%	2.71%	3.94%	1.2%
Brown Glass	50	2.4%	0.225	1%	46	2.1%	0.20	1.0%	96	2.25%	0.43	1.13%	1.77%	2.25%	0.5%
Green Glass	20	1.0%	0.150	1%	2	0.1%	0.03	0.1%	22	0.52%	0.18	0.46%	0.63%	0.52%	-0.1%
Other Glass	10	0.5%	0.075	0%	10	0.5%	0.05	0.3%	20	0.47%	0.13	0.33%	0.32%	0.47%	0.1%
TOTAL GLASS	143	6.9%	0.700	4%	163	7.5%	0.80	4.1%	306	7.18%	1.50	3.98%	5.44%	7.18%	1.7%
Aluminum Cans	39	1.9%	0.500	3%	37	1.7%	0.45	2.3%	76	1.78%	0.95	2.52%	1.59%	1.78%	0.2%
Other Aluminum	14	0.7%	0.175	1%	1	0.0%	0.03	0.1%	15	0.35%	0.20	0.53%	0.34%	0.35%	0.0%
Non Ferrous	7	0.3%	0.075	0%	-	0.0%	-	0.0%	7	0.16%	0.08	0.20%	0.23%	0.16%	-0.1%
Food Cans	74	3.6%	0.500	3%	63	2.9%	0.43	2.2%	137	3.22%	0.93	2.46%	2.93%	3.22%	0.3%
Ferrous	16	0.8%	0.100	1%	1	0.0%	0.03	0.1%	17	0.40%	0.13	0.33%	0.87%	0.40%	-0.5%
Oil filters	-	0.0%	-	0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.08%	0.00%	-0.1%
TOTAL METALS	150	7.2%	1.350	7%	102	4.7%	0.93	4.8%	252	5.92%	2.28	6.04%	6.04%	5.92%	-0.1%
PET #1	49	2.4%	0.775	4%	65	3.0%	0.98	5.0%	114	2.68%	1.75	4.65%	2.55%	2.68%	0.1%
HDPE #2	34	1.6%	0.600	3%	50	2.3%	0.88	4.5%	84	1.97%	1.48	3.92%	1.90%	1.97%	0.1%
Plastic Film	116	5.6%	1.800	10%	108	4.9%	1.85	9.5%	224	5.26%	3.85	9.69%	4.82%	5.26%	0.4%
Other Plastic	172	8.3%	2.200	12%	183	8.4%	2.10	10.8%	355	8.34%	4.30	11.42%	7.99%	8.34%	0.3%
TOTAL PLASTIC	371	17.9%	5.375	29%	406	18.6%	5.80	29.9%	777	18.24%	11.18	29.68%	17.25%	18.24%	1.0%
Food Waste	309	14.9%	1.525	8%	418	19.1%	2.10	10.8%	727	17.07%	3.83	9.63%	17.22%	17.07%	-0.2%
Wood Waste	23	1.1%	0.075	0%	24	1.1%	0.10	0.5%	47	1.10%	0.18	0.46%	1.19%	1.10%	-0.1%
Textiles	93	4.5%	0.575	3%	82	3.8%	0.38	1.9%	175	4.11%	0.95	2.52%	4.73%	4.11%	-0.6%
Diapers	127	6.1%	0.600	3%	109	5.0%	0.48	2.4%	236	5.54%	1.08	2.86%	5.48%	5.54%	0.1%
Other Organics	38	1.8%	0.175	1%	35	1.6%	0.20	1.0%	73	1.71%	0.38	1.00%	2.97%	1.71%	-1.3%
TOTAL ORGANICS	590	28.5%	2.950	16%	668	30.6%	3.25	16.8%	1,258	29.54%	6.20	16.47%	31.59%	29.54%	-2.1%
Fines	16	0.8%	0.150	1%	12	0.5%	0.15	0.8%	28	0.66%	0.30	0.80%	0.93%	0.66%	-0.3%
Other Inorganics	52	2.5%	0.250	1%	54	2.5%	0.28	1.4%	106	2.49%	0.53	1.39%	3.21%	2.49%	-0.7%
TOTAL INORGANICS	68	3.3%	0.400	2%	66	3.0%	0.43	2.2%	134	3.15%	0.83	2.19%	4.14%	3.15%	-1.0%
HHW	28	1.4%	0.175	1%	20	0.9%	0.10	0.5%	48	1.13%	0.28	0.73%	0.92%	1.13%	1.1%
Electronic Waste	10	0.5%	0.050	0%	18	0.8%	0.05	0.3%	28	0.66%	0.10	0.27%	0.99%	0.66%	0.7%
TOTAL SPECIAL WASTE	38	1.8%	0.225	1%	38	1.7%	0.15	0.8%	76	1.78%	0.38	1.00%	1.91%	1.78%	-0.1%
TOTAL COMPOSITION	2,073	100%	18.3	100%	2,186	100%	19.4	100%	4,259	100%	37.7	100%	100%	100%	0%

Chart 10.3 - Reeds Spring Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

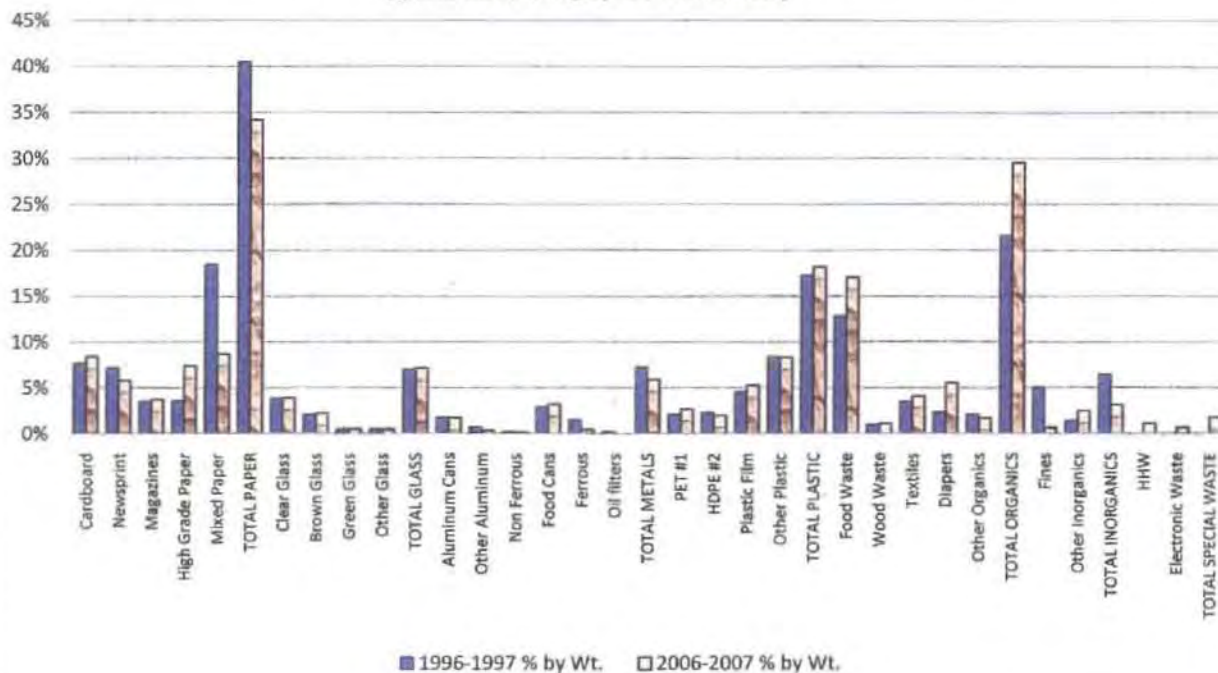


Chart 10.4 - Reeds Spring Results 2006-2007 vs. 2006-2007 Sort Average

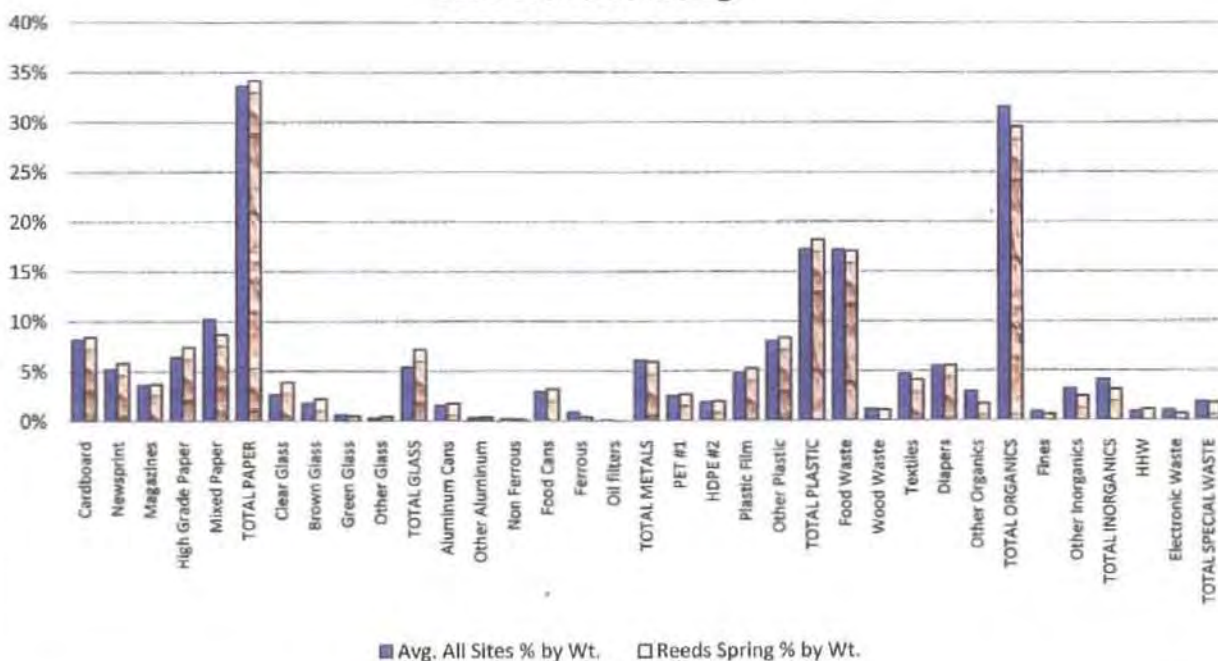


Table 10.6 - Special Waste Sorted at Reeds Spring Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)	1	
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	1	3
TV, VCR, DVD player, Game Stations, etc.		1
Remote Control or Game Controller		
Electronic Toy or Game	3	2
Computer Hard Drive		1
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		
Toner Cartridge		
Telephone/Answering Machine		
Cell Phones, Chargers		
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	6	several
Paint, Thinner, etc.	2	
Automotive Fluids (oil, fuel, starting fluid, etc.)		
Oil Filters		
Household Cleaners	2	1
Yard & Garden Spray, Powder, etc.		2
Insect & Animal Repellant Spray, Powder, Poison, etc.		
Over The Counter & Prescription Medicine	8	some
Beauty & Hygiene Products	4	1
Disposable Razors	11	
Alkaline Batteries	22	23
Lithium & Other Batteries		
Smoke Alarm		

Weight of Batteries Reported by RBRC

24 oz.

44.4

Appendix 11

St. Francois County Transfer Station

APPENDIX 11 – ST. FRANCOIS COUNTY TRANSFER STATION

The St. Francois County Transfer Station is located near Park Hills, off Highway 8 east of Potosi and northwest of Farmington. St. Francois County is part of Solid Waste Management District R.

Demographics:

	<u>Park Hills</u>	<u>St. Francois County</u>
Population	7,712	55,641
Number of Households	3,205	20,788
Average Household Size	2.41	2.49
Median Household Income	\$25,277	\$31,199

Solid Waste Collection

Various haulers provide trash and recycling collection services in the area. St. Francois County Environmental Corporation operates collection trucks, as do several municipalities and private haulers.

Solid Waste Disposal

The St. Francois County Transfer Station is owned and operated by St. Francois County Environmental Corporation. The facility receives approximately 80 tons per day which is bulked and transported to Timber Ridge Landfill in Ridgewood. The current tipping fee is \$60 per ton.

Waste Reduction, Recycling, and Recovery Programs

Recycling and yard waste are accepted at the transfer station. Several area communities have single stream programs which are bulked at the transfer station then shipped to Resource Management in Earth City. Alternately, residents may drop off recycling sorted into various commodities that are baled and marketed from the facility. Recycling processed through the transfer station has grown to over 4200 tons per year.

St. Francois County Transfer Station Sort Results

Sampling information and composition results are listed in Tables 11.1 through 11.6 and exhibited in Charts 11.1 through 11.4. Only six MSW loads arrived at the facility during the fall sort time frame, so the data is based on six sample loads rather than eight as in the other sort locations. No electronics were found during the fall sort. Nothing else extraordinary was noted during either the fall or spring sorts at the St. Francois County Transfer Station. Categories showing the greatest difference in sort results when compared to the 1996-1997 WCS were Plastic (4.5% more), Metals (2.3% less), and Glass (2% less).

When compared to the overall 2006-2007 sort average, there is very little variance with Plastics being the greatest at 1.3% more. Compared to the other sites sampled in the 2006-2007 WCS, St. Francois County had the highest percentage by weight in the Other Plastic(9.63) and Food Waste(20.64) subcategories while having the lowest percentage by weight of Green Glass(.26), Aluminum Cans(1.22), and the lowest percentage by volume of Clear Glass(.93), Brown Glass(.97), Green Glass(.23), Total Glass(2.4), Aluminum Cans(2.18), Diapers(2.26), Other Inorganics(.93), and Household Hazardous Waste(.16) categories and/or subcategories.

Table 11.1 - Sample Summary - St. Francois County Transfer Station

Fall 2006		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	200	1.4	85%	15%	Farmington & Park Hills	
2	226	1.6	80%	20%	Farmington	
3	208	1.9	90%	10%	Desloge	
4	330	2.4	100%	0%	Park Hills	
5	195	1.6	90%	10%	Farmington	
6	243	2.4	80%	20%	Farmington	
7	n/a	n/a				
8	n/a	n/a				
Total Fall	1402	11.3				
Average	175	1.4	66%	34%		
Spring 2007		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	315	2.5	100%	0%	East Desloge	
2	297	2.8	95%	5%	Farmington	
3	278	2.4	90%	10%	Desloge	
4	282	2.4	100%	0%	Iron Mtn. Lake	
5	283	2.9	95%	5%	Park Hills	
6	377	2.5	90%	10%	Park Hills	
7	280	2.5	100%	0%	Desloge	
8	337	3.1	100%	0%	Rural Washington County	
Total Spring	2449	20.9				
Average	306	2.6	96%	4%		
Site Total	3851	32.1				
Average	241	2.0	81%	7%		
Estimated Waste (lbs.) Accepted at Site During Sample Periods						480,000

Table 11.2 - St. Francois County Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	82	13.7	5.8%	1.2	0.15	10.7%
Newsprint	140	23.3	10.0%	0.85	0.106	7.6%
Magazines	71	11.8	5.1%	0.25	0.031	2.2%
High Grade Paper	96	16.0	6.8%	0.575	0.072	5.1%
Mixed Paper	203	33.8	14.5%	1.475	0.184	13.1%
PAPER TOTALS	592	98.7	42.2%	4.35	0.544	38.6%
Clear Glass	32	5.3	2.3%	0.1	0.013	0.9%
Brown Glass	20	3.3	1.4%	0.11	0.014	1.0%
Green Glass	5	0.8	0.4%	0.025	0.003	0.2%
Other Glass	1	0.2	0.1%	0.01	0.001	0.1%
GLASS TOTALS	58	9.7	4.1%	0.245	0.031	2.2%
Aluminum Cans	17	2.8	1.2%	0.35	0.044	3.1%
Other Aluminum	1	0.2	0.1%	0.05	0.006	0.4%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	37	6.2	2.6%	0.35	0.044	3.1%
Ferrous	1	0.2	0.1%	0.01	0.001	0.1%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	56	9.3	4.0%	0.76	0.095	6.8%
PET #1	34	5.7	2.4%	0.75	0.094	6.7%
HDPE #2	19	3.2	1.4%	0.5	0.063	4.4%
Plastic Film	39	6.5	2.8%	0.825	0.103	7.3%
Other Plastic	180	30.0	12.8%	1.85	0.231	16.4%
PLASTIC TOTALS	272	45.3	19.4%	3.925	0.491	34.9%
Food Waste	228	38.0	16.3%	0.85	0.106	7.6%
Wood Waste	4	0.7	0.3%	0.025	0.003	0.2%
Textiles	22	3.7	1.6%	0.2	0.025	1.8%
Diapers	89	14.8	6.3%	0.325	0.041	2.9%
Other Organics	22	3.7	1.6%	0.225	0.028	2.0%
ORGANIC TOTALS	365	60.8	26.0%	1.625	0.203	14.4%
Fines	45	7.5	3.2%	0.275	0.034	2.4%
Other Inorganics	6	1.0	0.4%	0.05	0.006	0.4%
INORGANIC TOTALS	51	8.5	3.6%	0.325	0.041	2.9%
HHW	8	1.3	0.6%	0.025	0.003	0.2%
Electronic Waste	0	0.0	0.0%	0	0.000	0.0%
SPECIAL WASTE TOTALS	8	1.3	0.6%	0.025	0.003	0.2%
TOTAL	1402	233.7	100%	11.255	1.876	100%

Table 11.3 - St. Francois County Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	215	26.9	8.8%	3.125	0.391	15.0%
Newsprint	67	8.4	2.7%	0.4	0.050	1.9%
Magazines	52	6.5	2.1%	0.175	0.022	0.8%
High Grade Paper	119	14.9	4.9%	1.25	0.156	6.0%
Mixed Paper	242	30.3	9.9%	2.575	0.322	12.4%
PAPER TOTALS	695	86.9	28.4%	7.525	0.941	36.1%
Clear Glass	63	7.9	2.6%	0.2	0.025	1.0%
Brown Glass	38	4.8	1.6%	0.2	0.025	1.0%
Green Glass	5	0.6	0.2%	0.05	0.006	0.2%
Other Glass	9	1.1	0.4%	0.075	0.009	0.4%
GLASS TOTALS	115	14.4	4.7%	0.525	0.066	2.5%
Aluminum Cans	30	3.8	1.2%	0.35	0.044	1.7%
Other Aluminum	12	1.5	0.5%	0.225	0.028	1.1%
Non Ferrous	6	0.8	0.2%	0.075	0.009	0.4%
Food Cans	99	12.4	4.0%	0.525	0.066	2.5%
Ferrous	14	1.8	0.6%	0.1	0.013	0.5%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	161	20.1	6.6%	1.275	0.159	6.1%
PET #1	67	8.4	2.7%	1	0.125	4.8%
HDPE #2	59	7.4	2.4%	0.975	0.122	4.7%
Plastic Film	126	15.8	5.1%	2.325	0.291	11.2%
Other Plastic	191	23.9	7.8%	2.7	0.338	12.9%
PLASTIC TOTALS	443	55.4	18.1%	7	0.875	33.6%
Food Waste	567	70.9	23.2%	2.15	0.269	10.3%
Wood Waste	32	4.0	1.3%	0.175	0.022	0.8%
Textiles	136	17.0	5.6%	0.85	0.106	4.1%
Diapers	109	13.6	4.5%	0.4	0.050	1.9%
Other Organics	32	4.0	1.3%	0.225	0.028	1.1%
ORGANIC TOTALS	876	109.5	35.8%	3.8	0.475	18.2%
Fines	18	2.3	0.7%	0.175	0.022	0.8%
Other Inorganics	83	10.4	3.4%	0.25	0.031	1.2%
INORGANIC TOTALS	101	12.6	4.1%	0.425	0.053	2.0%
HHW	30	3.8	1.2%	0.15	0.019	0.7%
Electronic Waste	28	3.5	1.1%	0.15	0.019	0.7%
SPECIAL WASTE TOTALS	58	7.3	2.4%	0.3	0.038	1.4%
TOTAL	2449	306.1	100%	20.85	2.606	100%

Chart 11.1 - St. Francois Co. Results Fall 2006 vs. Spring 2007
Percentage by Weight

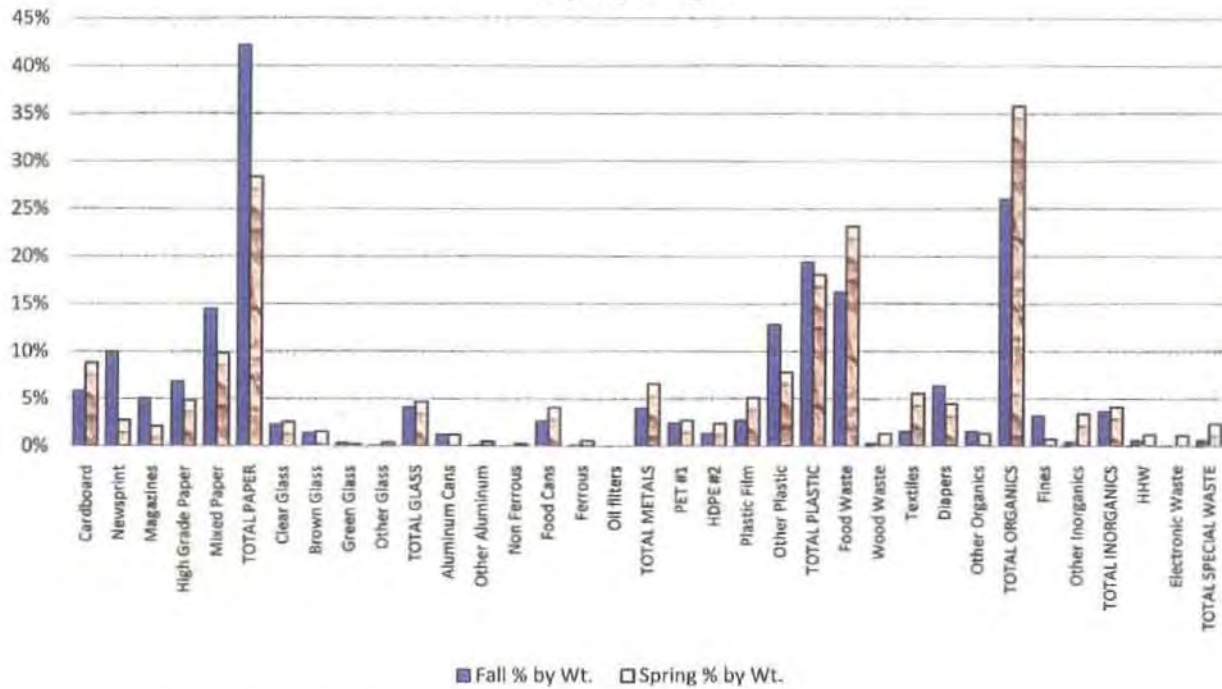
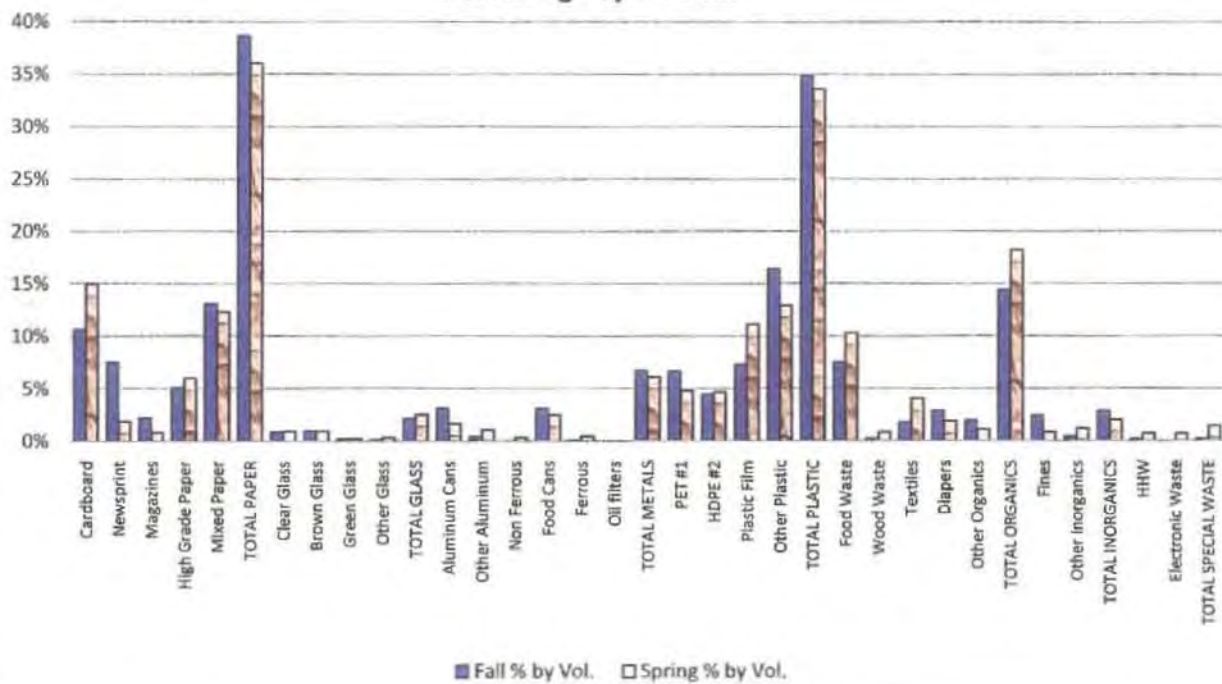


Chart 11.2 - St. Francois Co. Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 11.4 - Waste Composition Summary and Comparison
St. Francois County Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 9/28-9/29/06				Spring Sort - 4/16-4/17/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	82	5.8%	1.200	10.7%	215	8.8%	3.13	15.0%	297	7.71%	4.33	13.47%	6.9%	7.7%	0.8%
Newsprint	140	10.0%	0.850	7.6%	57	2.7%	0.40	1.9%	207	5.38%	1.25	3.89%	6.6%	5.4%	-1.2%
Magazines	71	5.1%	0.250	2.2%	52	2.1%	0.18	0.8%	123	3.19%	0.43	1.32%	3.9%	3.2%	-0.7%
High Grade Paper	96	6.8%	0.575	5.1%	119	4.9%	1.25	6.0%	215	5.58%	1.83	5.68%	2.8%	5.6%	2.8%
Mixed Paper	203	14.5%	1.475	13.1%	242	9.9%	2.58	12.4%	445	11.56%	4.05	12.61%	14.7%	11.6%	-3.1%
TOTAL PAPER	592	42.2%	4.350	38.6%	695	28.4%	7.53	36.1%	1,287	33.42%	11.88	36.99%	34.9%	33.4%	-1.5%
Clear Glass	32	2.3%	0.100	0.9%	63	2.6%	0.20	1.0%	95	2.47%	0.30	0.93%	3.9%	2.5%	-1.4%
Brown Glass	20	1.4%	0.110	1.0%	38	1.6%	0.20	1.0%	58	1.51%	0.31	0.97%	1.9%	1.5%	-0.4%
Green Glass	5	0.4%	0.025	0.2%	5	0.2%	0.05	0.2%	10	0.26%	0.08	0.23%	0.2%	0.3%	0.1%
Other Glass	1	0.1%	0.010	0.1%	9	0.4%	0.08	0.4%	10	0.26%	0.09	0.26%	0.5%	0.3%	-0.2%
TOTAL GLASS	68	4.1%	0.245	2.2%	115	4.7%	0.53	2.5%	173	4.49%	0.77	2.40%	6.5%	4.5%	-2.0%
Aluminum Cans	17	1.2%	0.350	3.1%	30	1.2%	0.35	1.7%	47	1.22%	0.70	2.18%	1.6%	1.2%	-0.4%
Other Aluminum	1	0.1%	0.050	0.4%	12	0.5%	0.23	1.1%	13	0.34%	0.28	0.86%	0.8%	0.3%	-0.5%
Non Ferrous	-	0.0%	-	0.0%	6	0.2%	0.08	0.4%	6	0.16%	0.08	0.23%	0.3%	0.2%	-0.1%
Food Cans	37	2.6%	0.350	3.1%	99	4.0%	0.53	2.5%	136	3.53%	0.88	2.73%	3.9%	3.5%	-0.4%
Ferrous	1	0.1%	0.010	0.1%	14	0.6%	0.10	0.5%	15	0.39%	0.11	0.34%	1.2%	0.4%	-0.8%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.1%	0.0%	-0.1%
TOTAL METALS	56	4.0%	0.760	6.8%	161	6.6%	1.28	6.1%	217	5.63%	2.04	6.34%	7.9%	5.6%	-2.3%
PET #1	34	2.4%	0.750	6.7%	67	2.7%	1.00	4.8%	101	2.62%	1.75	5.45%	1.8%	2.6%	0.8%
HDPE #2	19	1.4%	0.500	4.4%	59	2.4%	0.98	4.7%	78	2.03%	1.48	4.59%	2.4%	2.0%	-0.4%
Plastic Film	39	2.8%	0.825	7.3%	126	5.1%	2.33	11.2%	165	4.28%	3.15	9.81%	3.3%	4.3%	1.0%
Other Plastic	180	12.8%	1.850	16.4%	191	7.8%	2.70	12.9%	371	9.63%	4.55	14.17%	6.6%	9.6%	3.0%
TOTAL PLASTIC	272	19.4%	3.925	34.9%	443	18.1%	7.00	33.6%	715	18.57%	10.93	34.03%	14.1%	18.6%	4.5%
Food Waste	228	16.3%	0.850	7.6%	567	23.2%	2.15	10.3%	795	20.64%	3.00	9.34%	17.9%	20.6%	2.7%
Wood Waste	4	0.3%	0.025	0.2%	32	1.3%	0.18	0.8%	36	0.93%	0.20	0.62%	0.7%	0.9%	0.2%
Textiles	22	1.6%	0.200	1.8%	136	5.6%	0.85	4.1%	158	4.10%	1.05	3.27%	6.1%	4.1%	-2.0%
Diapers	89	6.3%	0.325	2.9%	109	4.5%	0.40	1.9%	198	5.14%	0.73	2.26%	4.2%	5.1%	0.9%
Other Organics	22	1.6%	0.225	2.0%	32	1.3%	0.23	1.1%	54	1.40%	0.45	1.40%	2.7%	1.4%	-1.3%
TOTAL ORGANICS	365	26.0%	1.625	14.4%	876	35.8%	3.80	18.2%	1,241	32.23%	5.43	16.90%	31.6%	32.2%	0.6%
Fines	45	3.2%	0.275	2.4%	18	0.7%	0.18	0.8%	63	1.64%	0.45	1.40%	4.1%	1.6%	-2.5%
Other Inorganics	6	0.4%	0.050	0.4%	83	3.4%	0.25	1.2%	89	2.31%	0.30	0.93%	1.0%	2.3%	1.3%
TOTAL INORGANICS	51	3.6%	0.325	2.9%	101	4.1%	0.43	2.0%	152	3.95%	0.75	2.34%	5.1%	3.9%	-1.2%
HHW	8	0.6%	0.025	0.2%	30	1.2%	0.15	0.7%	38	0.99%	0.18	0.55%	n/a	1.0%	1.0%
Electronic Waste	-	0.0%	-	0.0%	28	1.1%	0.15	0.7%	28	0.73%	0.15	0.47%	n/a	0.7%	0.7%
TOTAL SPECIAL WASTE	8	0.6%	0.025	0.2%	58	2.4%	0.30	1.4%	66	1.71%	0.33	1.01%		1.7%	1.7%
TOTAL COMPOSITION	1,402	100%	11.3	100%	2,449	100%	20.85	100%	3,851	100%	32.1	100%	100%	100%	0%

**Table 11.5 - Waste Composition Summary and Comparison St. Francois County Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 9/28-9/29/06				Spring Sort - 4/16-4/17/07				Total 2006-2007 Results for Site				Avg. All Sites	St. Fran. Co.	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	82	5.8%	1.200	10.7%	215	8.8%	3.13	15.0%	297	7.71%	4.33	13.47%	8.20%	7.71%	-0.5%
Newsprint	140	10.0%	0.850	7.6%	67	2.7%	0.40	1.9%	207	5.38%	1.25	3.89%	5.17%	5.38%	0.2%
Magazines	71	5.1%	0.250	2.2%	52	2.1%	0.18	0.8%	123	3.19%	0.43	1.32%	3.66%	3.19%	-0.5%
High Grade Paper	96	6.8%	0.575	5.1%	119	4.9%	1.25	6.0%	215	5.58%	1.83	5.68%	6.40%	5.58%	-0.8%
Mixed Paper	203	14.5%	1.475	13.1%	242	9.9%	2.58	12.4%	445	11.56%	4.05	12.61%	10.20%	11.56%	1.4%
TOTAL PAPER	592	42.2%	4.350	38.6%	695	28.4%	7.53	36.1%	1,287	33.42%	11.88	36.99%	33.63%	33.42%	-0.2%
Clear Glass	32	2.3%	0.100	0.9%	63	2.6%	0.20	1.0%	95	2.47%	0.30	0.93%	2.71%	2.47%	-0.2%
Brown Glass	20	1.4%	0.110	1.0%	38	1.6%	0.20	1.0%	58	1.51%	0.31	0.97%	1.77%	1.51%	-0.3%
Green Glass	5	0.4%	0.025	0.2%	5	0.2%	0.05	0.2%	10	0.26%	0.08	0.23%	0.63%	0.26%	-0.4%
Other Glass	1	0.1%	0.010	0.1%	9	0.4%	0.08	0.4%	10	0.26%	0.09	0.26%	0.32%	0.26%	-0.1%
TOTAL GLASS	58	4.1%	0.245	2.2%	115	4.7%	0.53	2.5%	173	4.49%	0.77	2.40%	5.44%	4.49%	-0.9%
Aluminum Cans	17	1.2%	0.350	3.1%	30	1.2%	0.35	1.7%	47	1.22%	0.70	2.18%	1.59%	1.22%	-0.4%
Other Aluminum	1	0.1%	0.050	0.4%	12	0.5%	0.23	1.1%	13	0.34%	0.28	0.86%	0.34%	0.34%	0.0%
Non Ferrous	-	0.0%	-	0.0%	6	0.2%	0.08	0.4%	6	0.16%	0.08	0.23%	0.23%	0.16%	-0.1%
Food Cans	37	2.6%	0.350	3.1%	99	4.0%	0.53	2.5%	136	3.53%	0.88	2.73%	2.93%	3.53%	0.6%
Ferrous	1	0.1%	0.010	0.1%	14	0.6%	0.10	0.5%	15	0.39%	0.11	0.34%	0.87%	0.39%	-0.5%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.08%	0.00%	-0.1%
TOTAL METALS	56	4.0%	0.760	6.8%	161	6.6%	1.28	6.1%	217	5.63%	2.04	6.34%	6.04%	5.63%	-0.4%
PET #1	34	2.4%	0.750	6.7%	67	2.7%	1.00	4.8%	101	2.62%	1.75	5.45%	2.55%	2.62%	0.1%
HDPE #2	19	1.4%	0.500	4.4%	59	2.4%	0.98	4.7%	78	2.03%	1.48	4.59%	1.90%	2.03%	0.1%
Plastic Film	39	2.8%	0.825	7.3%	126	5.1%	2.33	11.2%	165	4.28%	3.15	9.81%	4.82%	4.28%	-0.5%
Other Plastic	180	12.8%	1.850	16.4%	191	7.8%	2.70	12.9%	371	9.63%	4.55	14.17%	7.99%	9.63%	1.6%
TOTAL PLASTIC	272	19.4%	3.925	34.9%	443	18.1%	7.00	33.6%	715	18.67%	10.93	34.03%	17.25%	18.67%	1.3%
Food Waste	228	16.3%	0.850	7.6%	567	23.2%	2.15	10.3%	795	20.64%	3.00	9.34%	17.22%	20.64%	3.4%
Wood Waste	4	0.3%	0.025	0.2%	32	1.3%	0.18	0.8%	36	0.93%	0.20	0.62%	1.19%	0.93%	-0.3%
Textiles	22	1.6%	0.200	1.8%	136	5.6%	0.85	4.1%	158	4.10%	1.05	3.27%	4.73%	4.10%	-0.6%
Diapers	89	6.3%	0.325	2.9%	109	4.5%	0.40	1.9%	198	5.14%	0.73	2.26%	5.48%	5.14%	-0.3%
Other Organics	22	1.6%	0.225	2.0%	32	1.3%	0.23	1.1%	54	1.40%	0.45	1.40%	2.97%	1.40%	-1.6%
TOTAL ORGANICS	365	26.0%	1.625	14.4%	876	35.8%	3.80	18.2%	1,241	32.23%	5.43	16.90%	31.59%	32.23%	0.6%
Fines	45	3.2%	0.275	2.4%	18	0.7%	0.18	0.8%	63	1.64%	0.45	1.40%	0.93%	1.64%	0.7%
Other Inorganics	6	0.4%	0.050	0.4%	83	3.4%	0.25	1.2%	89	2.31%	0.30	0.93%	3.21%	2.31%	-0.9%
TOTAL INORGANICS	51	3.6%	0.325	2.9%	101	4.1%	0.43	2.0%	152	3.95%	0.75	2.34%	4.14%	3.95%	-0.2%
HHW	8	0.6%	0.025	0.2%	30	1.2%	0.15	0.7%	38	0.99%	0.18	0.55%	0.92%	0.99%	0.1%
Electronic Waste	-	0.0%	-	0.0%	28	1.1%	0.15	0.7%	28	0.73%	0.15	0.47%	0.99%	0.73%	-0.3%
TOTAL SPECIAL WASTE	8	0.6%	0.025	0.2%	58	2.4%	0.30	1.4%	66	1.71%	0.33	1.01%	1.91%	1.71%	-0.2%
TOTAL COMPOSITION	1,402	100%	11.3	100%	2,449	100%	20.85	100%	3,851	100%	32.1	100%	100%	100%	0%

Chart 11.3 - St. Francois Co. Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

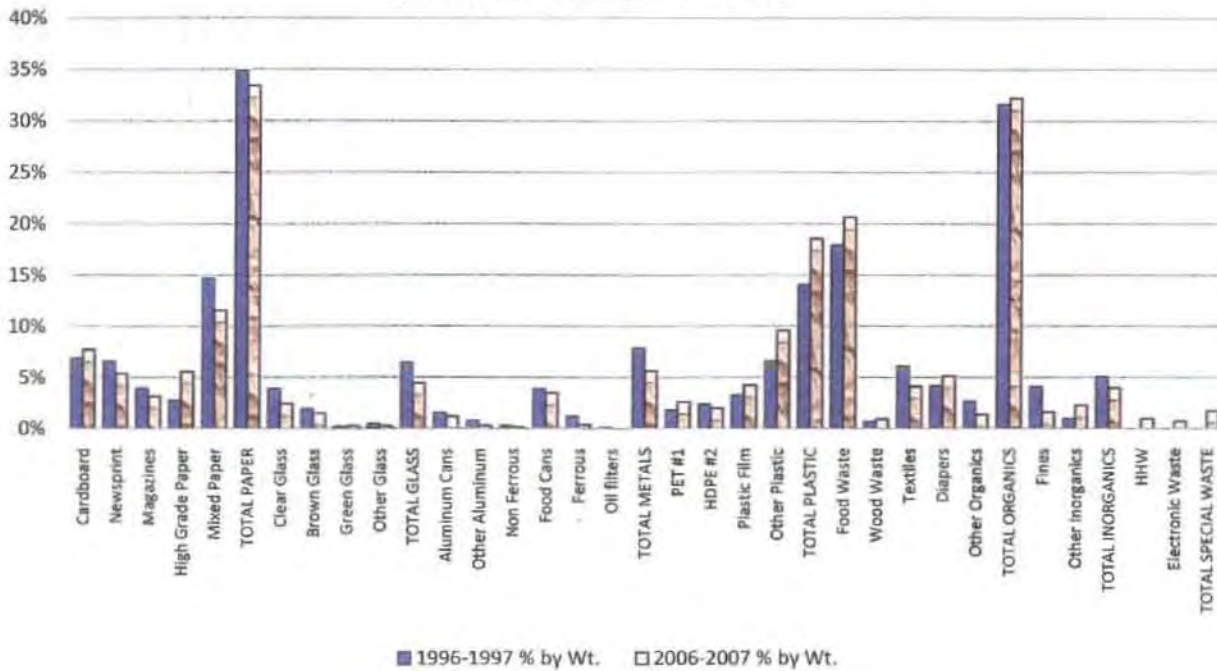


Chart 11.4 - St. Francois Co. Results 2006-2007 vs. 2006-2007 Sort Average

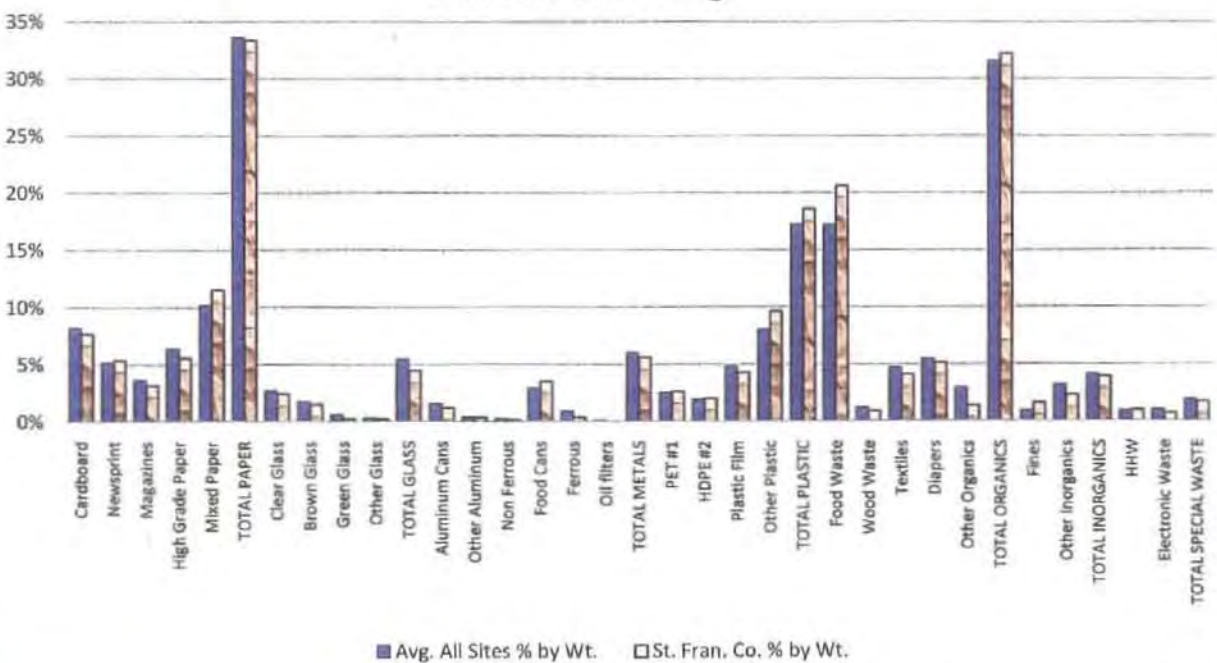


Table 11.6 - Special Waste Sorted at St. Francois County Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)		3
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	1	2
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller		
Electronic Toy or Game		2
Computer Hard Drive		
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		
Toner Cartridge	2	
Telephone/Answering Machine		
Cell Phones, Chargers		4
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	several	several
Paint, Thinner, etc.		12
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	
Oil Filters		
Household Cleaners		2
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellent Spray, Powder, Poison, etc.		
Over The Counter & Prescription Medicine	2	several
Beauty & Hygiene Products		2
Disposable Razors		
Alkaline Batteries	15	32
Lithium & Other Batteries		
Smoke Alarm		
Other		3 lighters

Weight of Batteries Reported by RBRC

29.8 oz.

70.7 oz.

Appendix 12

St. Joseph Landfill

APPENDIX 12 – ST. JOSEPH LANDFILL

The city of St. Joseph owns and operates the St. Joseph Landfill which is located a few miles east of I-29. St. Joseph is located in Buchanan County which is part of Solid Waste Management District D.

Demographics:

	<u>St. Joseph</u>	<u>Buchanan County</u>
Population	73,829	85,998
Number of Households	29,022	33,592
Average Household Size	2.39	2.42
Median Household Income	\$32,663	\$34,704

Solid Waste Collection

Waste is collected in St. Joseph and the surrounding communities by a variety of private haulers.

Solid Waste Disposal

The St. Joseph landfill received 113,831 tons of waste in calendar year 2006. The current tipping fee is \$30 per ton.

Waste Reduction, Recycling, and Recovery Programs

Area residents may recycle in St. Joseph at the drop-off center. Over 417 tons of recycling were processed through the city recycling drop off in 2006.

St. Joseph Landfill Sort Results

Sampling information and composition results are listed in Tables 12.1 through 12.6 and exhibited in Charts 12.1 through 12.4. Yard waste was noted in one of the samples during the spring sort. Otherwise, nothing extraordinary was noted. Comparing the St. Joseph sort results with the 1996-1997 WCS data, St. Joseph now has 4.4% less Paper in their waste stream as well as 5% more Plastics. The other categories do not show significant differences.

When comparing to the overall 2006-2007 sort average, the category with the greatest variance was Paper, reflecting only 1.5% more than average. Overall, the St. Joseph site results were closest to the average for all sites.

Table 12.1 - Sample Summary - St. Joseph Landfill

Fall 2006		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	193	2.0	70%	30%	East St. Joseph	
2	246	1.9	90%	10%	St. Joseph	
3	261	2.5	80%	20%	Maryville	
4	228	1.8	80%	20%	Savannah	
5	242	1.8	90%	10%	North St. Joseph	
6	229	1.8	80%	20%	Plattsburg	
7	249	2.3	95%	5%	Osborn/Cameron	
8	230	2.1	90%	10%	East St. Joseph	
Total Fall	1878	16.2				
Average	235	2.0	84%	16%		
Spring 2007		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	258	2.0	90%	10%	St. Joseph	
2	223	2.1	90%	10%	St. Joseph	
3	196	1.7	95%	5%	Plattsburg	
4	183	1.7	90%	10%	St. Joseph	
5	228	1.9	90%	10%	Savannah	
6	192	1.6	80%	20%	Maryville & Grant City	
7	252	2.3	50%	50%	Maryville	
8	325	2.7	60%	40%	Maryville & School	
Total Spring	1857	15.9				
Average	232	2.0	81%	19%		
Site Total	3735	32.0				
Average	233	2.0	83%	18%		
Estimated Waste (lbs.) Accepted at Site During Sample Period						2,239,298

Table 12.2 - St. Joseph Landfill Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	154	19.3	8.2%	2.15	0.269	13.3%
Newsprint	120	15.0	6.4%	0.65	0.081	4.0%
Magazines	81	10.1	4.3%	0.425	0.053	2.6%
High Grade Paper	99	12.4	5.3%	0.8	0.100	4.9%
Mixed Paper	207	25.9	11.0%	1.925	0.241	11.9%
PAPER TOTALS	661	82.6	35.2%	5.95	0.744	36.8%
Clear Glass	45	5.6	2.4%	0.225	0.028	1.4%
Brown Glass	35	4.4	1.9%	0.225	0.028	1.4%
Green Glass	11	1.4	0.6%	0.1	0.013	0.6%
Other Glass	2	0.3	0.1%	0.025	0.003	0.2%
GLASS TOTALS	93	11.6	5.0%	0.575	0.072	3.6%
Aluminum Cans	36	4.5	1.9%	0.45	0.056	2.8%
Other Aluminum	8	1.0	0.4%	0.1	0.013	0.6%
Non Ferrous	5	0.6	0.3%	0.025	0.003	0.2%
Food Cans	49	6.1	2.6%	0.425	0.053	2.6%
Ferrous	18	2.3	1.0%	0.15	0.019	0.9%
Oil filters (one)	1	0.1	0.1%	0.025	0.003	0.2%
METAL TOTALS	117	14.6	6.2%	1.175	0.147	7.3%
PET #1	45	5.6	2.4%	0.575	0.072	3.6%
HDPE #2	31	3.9	1.7%	0.45	0.056	2.8%
Plastic Film	89	11.1	4.7%	1.625	0.203	10.0%
Other Plastic	143	17.9	7.6%	1.9	0.238	11.7%
PLASTIC TOTALS	308	38.5	16.4%	4.55	0.569	28.1%
Food Waste	309	38.6	16.5%	1.525	0.191	9.4%
Wood Waste	19	2.4	1.0%	0.1	0.013	0.6%
Textiles	90	11.3	4.8%	0.6	0.075	3.7%
Diapers	132	16.5	7.0%	0.775	0.097	4.8%
Other Organics	43	5.4	2.3%	0.275	0.034	1.7%
ORGANIC TOTALS	593	74.1	31.6%	3.275	0.409	20.2%
Fines	22	2.8	1.2%	0.125	0.016	0.8%
Other Inorganics	61	7.6	3.2%	0.375	0.047	2.3%
INORGANIC TOTALS	83	10.4	4.4%	0.5	0.063	3.1%
HHW	14	1.8	0.7%	0.1	0.013	0.6%
Electronic Waste	9	1.1	0.5%	0.05	0.006	0.3%
SPECIAL WASTE TOTALS	23	2.9	1.2%	0.15	0.019	0.9%
TOTAL	1878	234.8	100%	16.175	2.022	100%

Table 12.3 - St. Joseph Landfill Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	139	17.4	7.5%	2.3	0.288	14.5%
Newsprint	127	15.9	6.8%	0.675	0.084	4.3%
Magazines	65	8.1	3.5%	0.35	0.044	2.2%
High Grade Paper	103	12.9	5.5%	0.875	0.109	5.5%
Mixed Paper	218	27.3	11.7%	2.2	0.275	13.9%
PAPER TOTALS	652	81.5	35.1%	6.4	0.800	40.4%
Clear Glass	38	4.8	2.0%	0.175	0.022	1.1%
Brown Glass	41	5.1	2.2%	0.2	0.025	1.3%
Green Glass	15	1.9	0.8%	0.15	0.019	0.9%
Other Glass	1	0.1	0.1%	0.025	0.003	0.2%
GLASS TOTALS	95	11.9	5.1%	0.55	0.069	3.5%
Aluminum Cans	27	3.4	1.5%	0.375	0.047	2.4%
Other Aluminum	7	0.9	0.4%	0.075	0.009	0.5%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	45	5.6	2.4%	0.275	0.034	1.7%
Ferrous	34	4.3	1.8%	0.175	0.022	1.1%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	113	14.1	6.1%	0.9	0.113	5.7%
PET #1	54	6.8	2.9%	0.85	0.106	5.4%
HDPE #2	41	5.1	2.2%	0.7	0.088	4.4%
Plastic Film	93	11.6	5.0%	1.625	0.203	10.3%
Other Plastic	165	20.6	8.9%	2.075	0.259	13.1%
PLASTIC TOTALS	353	44.1	19.0%	5.25	0.656	33.1%
Food Waste	325	40.6	17.5%	1.25	0.156	7.9%
Wood Waste	27	3.4	1.5%	0.1	0.013	0.6%
Textiles	74	9.3	4.0%	0.325	0.041	2.1%
Diapers	53	6.6	2.9%	0.225	0.028	1.4%
Other Organics	64	8.0	3.4%	0.275	0.034	1.7%
ORGANIC TOTALS	543	67.9	29.2%	2.175	0.272	13.7%
Fines	14	1.8	0.8%	0.125	0.016	0.8%
Other Inorganics	58	7.3	3.1%	0.3	0.038	1.9%
INORGANIC TOTALS	72	9.0	3.9%	0.425	0.053	2.7%
HHW	18	2.3	1.0%	0.1	0.013	0.6%
Electronic Waste	11	1.4	0.6%	0.05	0.006	0.3%
SPECIAL WASTE TOTALS	29	3.6	1.6%	0.15	0.019	0.9%
TOTAL	1857	232.1	100%	15.85	1.981	100%

Chart 12.1 - St. Joseph Results Fall 2006 vs. Spring 2007
Percentage by Weight

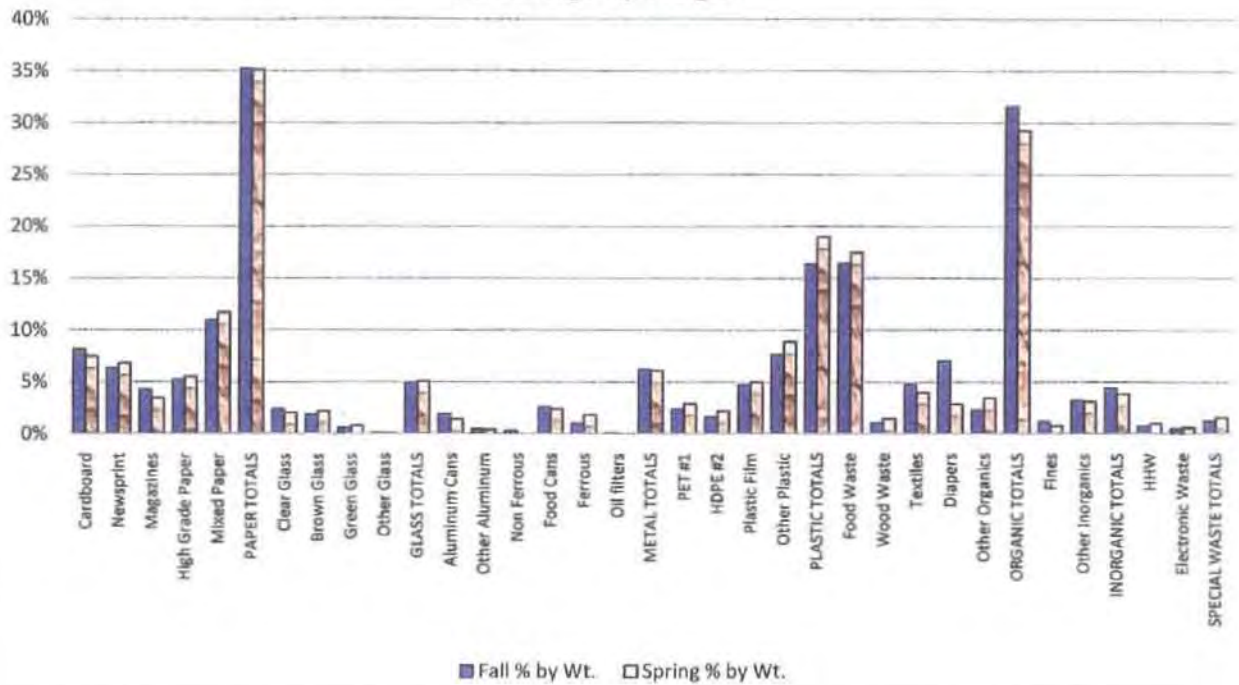
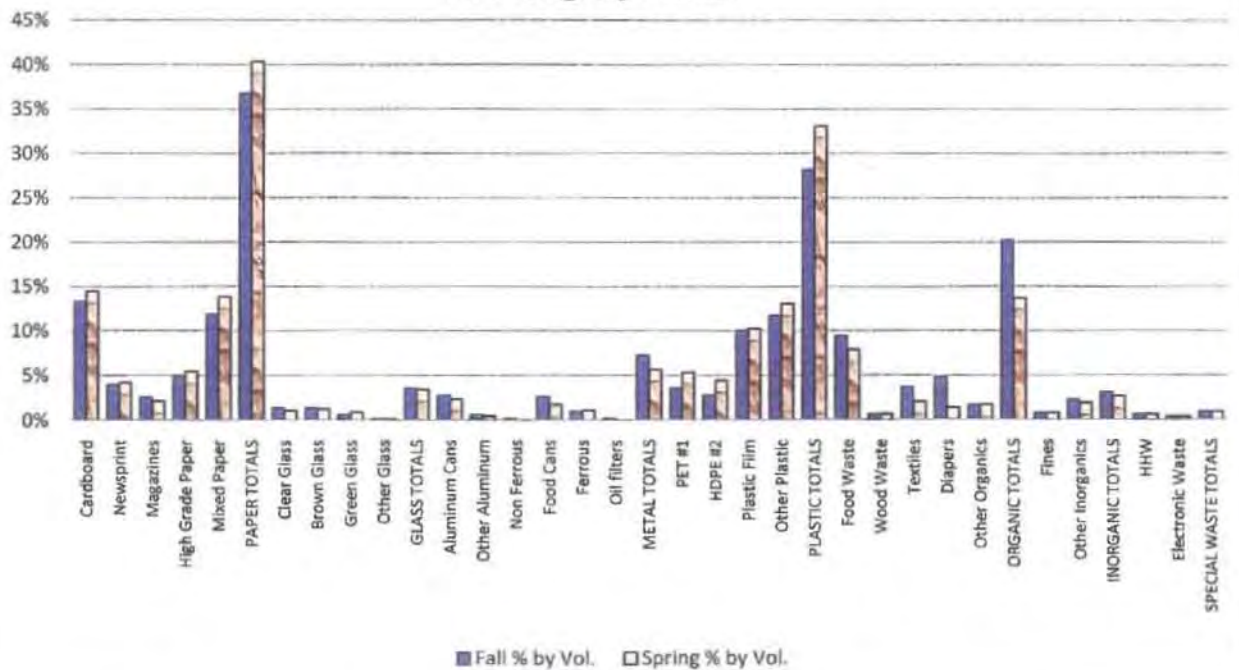


Chart 12.2 - St. Joseph Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 12.4 - Waste Composition Summary and Comparison
City of St. Joseph Landfill 1996-1997 to 2006-2007**

	Fall Sort - 10/25-10/26/06				Spring Sort - 5/29-5/30/07				Total 2006-2007 Results for Site				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	154	8.2%	2.150	13%	139	7.5%	2.30	14.5%	293	7.8%	4.45	14%	7.60%	7.84%	0.2%
Newsprint	120	6.4%	0.650	4%	127	6.8%	0.68	4.3%	247	6.6%	1.33	4%	12.10%	6.61%	-5.5%
Magazines	81	4.3%	0.425	3%	65	3.5%	0.35	2.2%	146	3.9%	0.78	2%	3.60%	3.91%	0.3%
High Grade Paper	99	5.3%	0.800	5%	103	5.5%	0.88	5.5%	202	5.4%	1.68	5%	2.70%	5.41%	2.7%
Mixed Paper	207	11.0%	1.925	12%	218	11.7%	2.20	13.9%	425	11.4%	4.13	13%	13.60%	11.38%	-2.2%
TOTAL PAPER	661	35.2%	5.950	37%	652	35.1%	6.40	40.4%	1,313	35.2%	12.35	39%	39.60%	35.15%	-4.4%
Clear Glass	45	2.4%	0.225	1%	38	2.0%	0.18	1.1%	83	2.2%	0.40	1%	3.10%	2.22%	-0.9%
Brown Glass	35	1.9%	0.225	1%	41	2.2%	0.20	1.3%	76	2.0%	0.43	1%	2.30%	2.03%	-0.3%
Green Glass	11	0.6%	0.100	1%	15	0.8%	0.15	0.9%	26	0.7%	0.25	1%	0.50%	0.70%	0.2%
Other Glass	2	0.1%	0.025	0%	1	0.1%	0.03	0.2%	3	0.1%	0.05	0%	0.50%	0.08%	-0.4%
TOTAL GLASS	93	5.0%	0.575	4%	95	5.1%	0.55	3.5%	188	5.0%	1.13	4%	6.40%	5.03%	-1.4%
Aluminum Cans	36	1.9%	0.450	3%	27	1.5%	0.38	2.4%	63	1.7%	0.83	3%	1.40%	1.69%	0.3%
Other Aluminum	8	0.4%	0.100	1%	7	0.4%	0.08	0.5%	15	0.4%	0.18	1%	0.80%	0.40%	-0.4%
Non Ferrous	5	0.3%	0.025	0%	-	0.0%	-	0.0%	5	0.1%	0.03	0%	0.10%	0.13%	0.0%
Food Cans	49	2.6%	0.425	3%	45	2.4%	0.28	1.7%	94	2.5%	0.70	2%	3.40%	2.52%	-0.9%
Ferrous	18	1.0%	0.150	1%	34	1.8%	0.18	1.1%	52	1.4%	0.33	1%	1.50%	1.39%	-0.1%
Oil filters	1	0.1%	0.025	0%	-	0.0%	-	0.0%	1	0.0%	0.03	0%	0.00%	0.03%	0.0%
TOTAL METALS	117	6.2%	1.175	7%	113	6.1%	0.90	5.7%	230	6.2%	2.08	6%	7.20%	6.16%	-1.0%
PET #1	45	2.4%	0.575	4%	54	2.8%	0.85	5.4%	99	2.7%	1.43	4%	1.60%	2.65%	1.1%
HDPE #2	31	1.7%	0.450	3%	41	2.2%	0.70	4.4%	72	1.9%	1.15	4%	2.10%	1.93%	-0.2%
Plastic Film	89	4.7%	1.625	10%	93	5.0%	1.63	10.3%	182	4.9%	3.25	10%	3.40%	4.87%	1.5%
Other Plastic	143	7.6%	1.900	12%	165	8.9%	2.08	13.1%	308	8.2%	3.98	12%	5.60%	8.25%	2.6%
TOTAL PLASTIC	308	16.4%	4.550	28%	353	19.0%	5.25	33.1%	661	17.7%	9.80	31%	12.70%	17.70%	5.0%
Food Waste	309	16.5%	1.525	9%	325	17.5%	1.25	7.9%	634	17.0%	2.78	9%	19.70%	16.97%	-2.7%
Wood Waste	19	1.0%	0.100	1%	27	1.5%	0.10	0.6%	46	1.2%	0.20	1%	0.80%	1.23%	0.4%
Textiles	90	4.8%	0.800	4%	74	4.0%	0.33	2.1%	164	4.4%	0.93	3%	3.20%	4.39%	1.2%
Diapers	132	7.0%	0.775	5%	53	2.9%	0.23	1.4%	185	5.0%	1.00	3%	2.80%	4.95%	2.2%
Other Organics	43	2.3%	0.275	2%	64	3.4%	0.28	1.7%	107	2.9%	0.55	2%	2.90%	2.86%	0.0%
TOTAL ORGANICS	593	31.6%	3.275	20%	543	29.2%	2.18	13.7%	1,136	30.4%	5.45	17%	29.40%	30.41%	1.0%
Fines	22	1.2%	0.125	1%	14	0.8%	0.13	0.8%	36	1.0%	0.25	1%	2.80%	0.96%	-1.8%
Other Inorganics	61	3.2%	0.375	2%	58	3.1%	0.30	1.9%	119	3.2%	0.68	2%	1.30%	3.19%	1.9%
TOTAL INORGANICS	83	4.4%	0.500	3%	72	3.9%	0.43	2.7%	155	4.1%	0.93	3%	4.10%	4.15%	0.0%
HHW	14	0.7%	0.100	1%	18	1.0%	0.10	0.6%	32	0.9%	0.20	1%	n/a	0.86%	0.9%
Electronic Waste	9	0.5%	0.050	0%	11	0.6%	0.05	0.3%	20	0.5%	0.10	0%	n/a	0.54%	0.5%
TOTAL SPECIAL WASTE	23	1.2%	0.150	1%	29	1.6%	0.15	0.9%	52	1.4%	0.30	1%		1.39%	1.4%
TOTAL COMPOSITION	1,878	100%	16.2	100%	1,857	100%	15.9	100%	3,735	100%	32.0	100%	100%	100%	0%

**Table 12.5 - Waste Composition Summary and Comparison St. Joseph Landfill
Site to 2006-2007 Overall Average**

	Fall Sort - 10/25-10/26/06				Spring Sort - 5/29-5/30/07				Total 2006-2007 Results for Site				Avg. All Sites	St. Joseph	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	154	8.2%	2.150	13%	139	7.5%	2.30	14.5%	293	7.8%	4.45	14%	8.20%	7.84%	-0.4%
Newsprint	120	6.4%	0.650	4%	127	6.8%	0.68	4.3%	247	6.6%	1.33	4%	5.17%	6.61%	1.4%
Magazines	81	4.3%	0.425	3%	65	3.5%	0.35	2.2%	146	3.9%	0.78	2%	3.66%	3.91%	0.2%
High Grade Paper	99	5.3%	0.800	5%	103	5.5%	0.88	5.5%	202	5.4%	1.68	5%	6.40%	5.41%	-1.0%
Mixed Paper	207	11.0%	1.925	12%	218	11.7%	2.20	13.9%	425	11.4%	4.13	13%	10.20%	11.38%	1.2%
TOTAL PAPER	661	35.2%	5.950	37%	662	35.1%	6.40	40.4%	1,313	35.2%	12.35	39%	33.63%	35.15%	1.5%
Clear Glass	45	2.4%	0.225	1%	38	2.0%	0.18	1.1%	83	2.2%	0.40	1%	2.71%	2.22%	-0.5%
Brown Glass	35	1.9%	0.225	1%	41	2.2%	0.20	1.3%	76	2.0%	0.43	1%	1.77%	2.03%	0.3%
Green Glass	11	0.6%	0.100	1%	15	0.8%	0.15	0.9%	26	0.7%	0.25	1%	0.63%	0.70%	0.1%
Other Glass	2	0.1%	0.025	0%	1	0.1%	0.03	0.2%	3	0.1%	0.05	0%	0.32%	0.08%	-0.2%
TOTAL GLASS	93	5.0%	0.575	4%	95	5.1%	0.55	3.5%	188	5.0%	1.13	4%	5.44%	5.03%	-0.4%
Aluminum Cans	36	1.9%	0.450	3%	27	1.5%	0.38	2.4%	63	1.7%	0.83	3%	1.59%	1.69%	0.1%
Other Aluminum	8	0.4%	0.100	1%	7	0.4%	0.08	0.5%	15	0.4%	0.18	1%	0.34%	0.40%	0.1%
Non Ferrous	5	0.3%	0.025	0%	-	0.0%	-	0.0%	5	0.1%	0.03	0%	0.23%	0.13%	-0.1%
Food Cans	49	2.6%	0.425	3%	45	2.4%	0.28	1.7%	94	2.5%	0.70	2%	2.93%	2.52%	-0.4%
Ferrous	18	1.0%	0.150	1%	34	1.8%	0.18	1.1%	52	1.4%	0.33	1%	0.87%	1.39%	0.5%
Oil filters	1	0.1%	0.025	0%	-	0.0%	-	0.0%	1	0.0%	0.03	0%	0.08%	0.03%	-0.1%
TOTAL METALS	117	6.2%	1.175	7%	113	6.1%	0.90	5.7%	230	6.2%	2.08	6%	6.04%	6.16%	0.1%
PET #1	45	2.4%	0.575	4%	54	2.9%	0.85	5.4%	99	2.7%	1.43	4%	2.55%	2.65%	0.1%
HDPE #2	31	1.7%	0.450	3%	41	2.2%	0.70	4.4%	72	1.9%	1.15	4%	1.90%	1.93%	0.0%
Plastic Film	89	4.7%	1.625	10%	93	5.0%	1.63	10.3%	182	4.9%	3.25	10%	4.82%	4.87%	0.1%
Other Plastic	143	7.6%	1.900	12%	165	8.9%	2.08	13.1%	308	8.2%	3.98	12%	7.99%	8.25%	0.3%
TOTAL PLASTIC	308	16.4%	4.550	28%	353	19.0%	5.25	33.1%	661	17.7%	9.80	31%	17.25%	17.70%	0.4%
Food Waste	309	16.5%	1.525	9%	325	17.5%	1.25	7.9%	634	17.0%	2.78	9%	17.22%	16.97%	-0.2%
Wood Waste	19	1.0%	0.100	1%	27	1.5%	0.10	0.6%	46	1.2%	0.20	1%	1.18%	1.23%	0.0%
Textiles	90	4.8%	0.600	4%	74	4.0%	0.33	2.1%	164	4.4%	0.93	3%	4.73%	4.39%	-0.3%
Diapers	132	7.0%	0.775	5%	53	2.9%	0.23	1.4%	185	5.0%	1.00	3%	5.48%	4.95%	-0.5%
Other Organics	43	2.3%	0.275	2%	64	3.4%	0.28	1.7%	107	2.9%	0.55	2%	2.97%	2.86%	-0.1%
TOTAL ORGANICS	593	31.6%	3.275	20%	543	29.2%	2.18	13.7%	1,136	30.4%	5.45	17%	31.59%	30.41%	-1.2%
Fines	22	1.2%	0.125	1%	14	0.8%	0.13	0.8%	36	1.0%	0.25	1%	0.93%	0.96%	0.0%
Other Inorganics	61	3.2%	0.375	2%	58	3.1%	0.30	1.9%	119	3.2%	0.68	2%	3.21%	3.19%	0.0%
TOTAL INORGANICS	83	4.4%	0.500	3%	72	3.9%	0.43	2.7%	155	4.1%	0.93	3%	4.14%	4.15%	0.0%
HHW	14	0.7%	0.100	1%	18	1.0%	0.10	0.6%	32	0.9%	0.20	1%	0.92%	0.86%	0.9%
Electronic Waste	9	0.5%	0.050	0%	11	0.6%	0.05	0.3%	20	0.5%	0.10	0%	0.99%	0.54%	0.5%
TOTAL SPECIAL WASTE	23	1.2%	0.150	1%	29	1.6%	0.15	0.9%	52	1.4%	0.30	1%	1.91%	1.39%	-0.5%
TOTAL COMPOSITION	1,878	100%	16.2	100%	1,857	100%	15.9	100%	3,735	100%	32.0	100%	100%	100%	0%

Chart 12.3 - St. Joseph Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

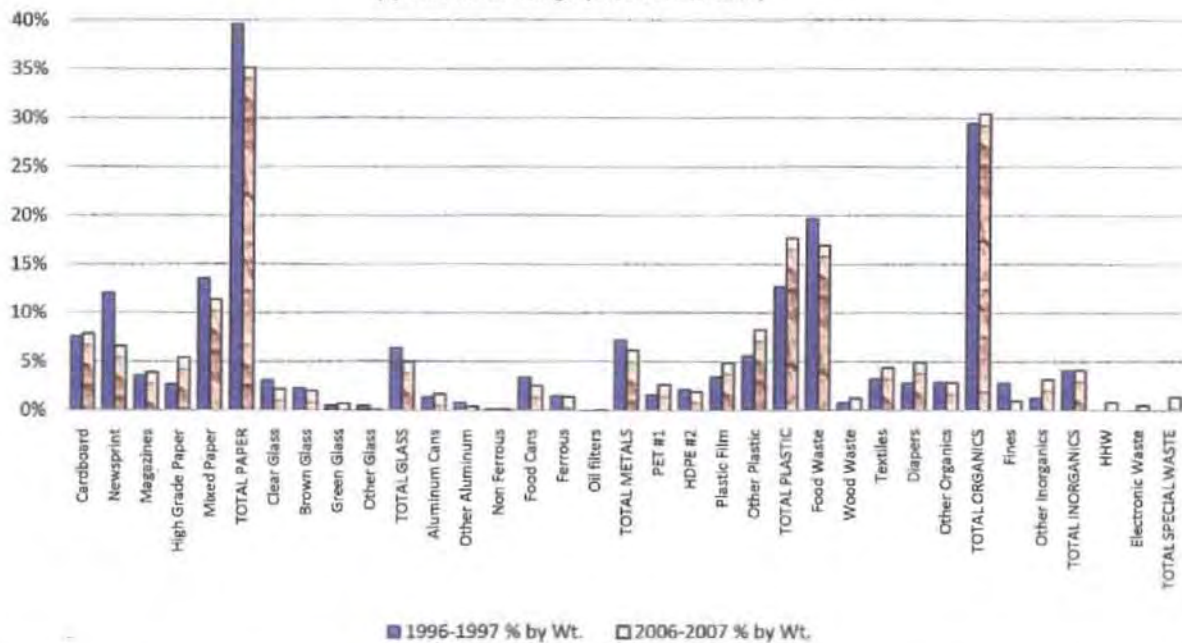


Chart 12.4 - St. Joseph Results 2006-2007 vs. 2006-2007 Sort Average

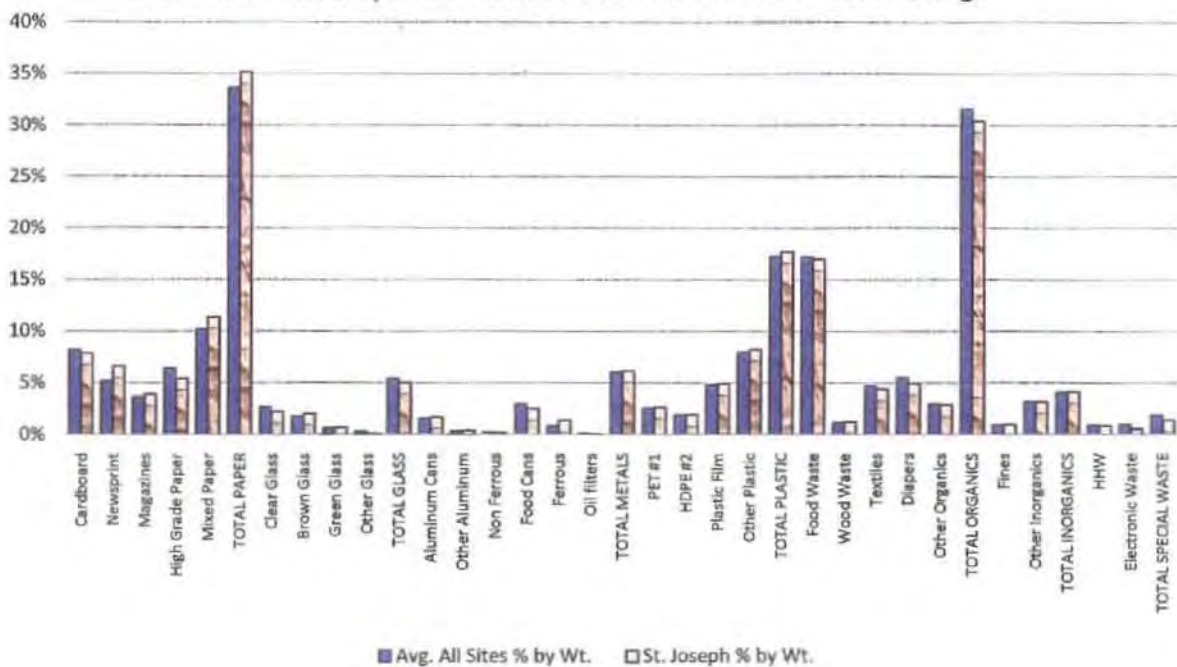


Table 12.6 - Special Waste Sorted at St. Joseph Landfill

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)		2
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	2	1
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller	4	
Electronic Toy or Game	6	
Computer Hard Drive	1	
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		
Toner Cartridge		1
Telephone/Answering Machine		
Cell Phones, Chargers	2	1
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes		few
Paint, Thinner, etc.	9	
Automotive Fluids (oil, fuel, starting fluid, etc.)	4	
Oil Filters		
Household Cleaners	5	
Yard & Garden Spray, Powder, etc.	3	
Insect & Animal Repellant Spray, Powder, Poison, etc.	7	1
Over The Counter & Prescription Medicine		several
Beauty & Hygiene Products	4	1
Disposable Razors	11	
Alkaline Batteries	19	46
Lithium & Other Batteries	1	
Smoke Alarm		
Other (list)		firework

Weight of Batteries Reported by RBRC

27.9 oz.

40.5 oz.

Appendix 13

St. Louis (south) Transfer Station

APPENDIX 13 – ST. LOUIS (SOUTH) TRANSFER STATION

There are three transfer stations in the city of St. Louis. The southernmost location was the one sampled. It is located near the I-44 and I-55 intersection in St. Louis County which is part of Solid Waste Management District L. The city owns this facility and leases it to Waste Management for operation.

Demographics:

	<u>St. Louis</u>	<u>St. Louis County</u>
Population	348,189	1,016,315
Number of Households	147,286	404,607
Average Household Size	2.29	2.47
Median Household Income	\$27,156	\$50,532

Solid Waste Collection

Various city of St. Louis and Waste Management collection vehicles bring waste to the transfer station from residential and commercial waste streams in the southern region of the city.

Solid Waste Disposal

The St. Louis (south) Transfer Station processes 500 to 600 tons per day, over 100 tons of which come from St. Louis city residents. City of St. Louis residents can bring one load per month free of charge to the facility. Otherwise, the facility is not open to accept waste from other collectors. The waste is bulked and hauled to two Waste Management landfills in Illinois.

Waste Reduction, Recycling, and Recovery Programs

A residential drop-off recycling facility is located adjacent to the Transfer Station, which is one of twenty-seven located in the city. Curbside recycling is available to several zip codes within the service area.

St. Louis (south) Transfer Station Sort Results

Sampling information and composition results are listed in Tables 13.1 through 13.6 and exhibited in Charts 13.1 through 13.4. Only one electronic item was found in the fall sort. No other extraordinary items were noted. Compared to the 1996-1997 WCS, there was 2.2% less Glass and 3.3% more Plastic in the St. Louis waste stream. Though the overall Paper category only changed by .3% (less), the Newsprint subcategory itself was 6.8% less than in 1996-1997.

When compared to the 2006-2007 overall average, St. Louis has 2.7% more Paper and 1.6% fewer Plastics by weight. Comparing categories and subcategories to the other sites sampled in 2006-2007, St. Louis had the highest percentage by weight in Magazines(4.51), Total Paper(36.29) and Green Glass(1.1) as well as having the highest percentage by volume of Newsprint(4.03). St. Louis had the lowest percentage by weight of Clear Glass(2.04), Other Plastic(6.92) and Total Special Waste(.98) while having the lowest percentage by volume of Clear Glass(.93), Electronic Waste(.19) and Total Special Waste(.56).

Table 13.1 - Sample Summary - Saint Louis (South) Transfer Station

Fall 2006		Sample Size		Composition		Collection
Sample #		Weight(lbs)	Volume(cy)	Res.	Comm.	Location
1		164	1.3	100%	0%	St. Louis
2		157	1.8	100%	0%	St. Louis
3		150	1.4	100%	0%	St. Louis
4		175	1.5	100%	0%	St. Louis
5		206	1.6	100%	0%	St. Louis
6		165	1.6	100%	0%	St. Louis
7		262	2.1	100%	0%	St. Louis
8		219	1.9	100%	0%	St. Louis
Total Fall		1498	13.2			
Average		187	1.6	100%	0%	

Spring 2007		Sample Size		Composition		Collection
Sample #		Weight(lbs)	Volume(cy)	Res.	Comm.	Location
1		214	1.8	90%	10%	St. Louis
2		186	1.2	90%	10%	St. Louis
3		215	1.9	90%	10%	St. Louis
4		216	1.7	90%	10%	St. Louis
5		221	1.6	90%	10%	St. Louis
6		209	1.9	90%	10%	St. Louis
7		253	2.0	90%	10%	St. Louis
8		267	1.9	90%	10%	St. Louis
Total Spring		1781	13.8			
Average		223	1.7	90%	10%	

Site Total	3279	27.0				
Average	205	1.7	95%	5%		

Estimated Waste (lbs.) Accepted at Site During Sample Periods						3,300,000
--	--	--	--	--	--	------------------

Table 13.2 - St. Louis (South) Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	90	11.3	6.0%	1.475	0.184	11.2%
Newsprint	112	14.0	7.5%	0.625	0.078	4.7%
Magazines	80	10.0	5.3%	0.275	0.034	2.1%
High Grade Paper	126	15.8	8.4%	1.1	0.138	8.3%
Mixed Paper	185	23.1	12.3%	1.825	0.228	13.9%
PAPER TOTALS	593	74.1	39.6%	5.3	0.663	40.2%
Clear Glass	26	3.3	1.7%	0.1	0.013	0.8%
Brown Glass	27	3.4	1.8%	0.125	0.016	0.9%
Green Glass	15	1.9	1.0%	0.1	0.013	0.8%
Other Glass	4	0.5	0.3%	0.05	0.006	0.4%
GLASS TOTALS	72	9.0	4.8%	0.375	0.047	2.8%
Aluminum Cans	17	2.1	1.1%	0.325	0.041	2.5%
Other Aluminum	4	0.5	0.3%	0.075	0.009	0.6%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	30	3.8	2.0%	0.325	0.041	2.5%
Ferrous	10	1.3	0.7%	0.1	0.013	0.8%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	61	7.6	4.1%	0.825	0.103	6.3%
PET #1	33	4.1	2.2%	0.625	0.078	4.7%
HDPE #2	17	2.1	1.1%	0.4	0.050	3.0%
Plastic Film	79	9.9	5.3%	1.55	0.194	11.8%
Other Plastic	73	9.1	4.9%	1.275	0.159	9.7%
PLASTIC TOTALS	202	25.3	13.5%	3.85	0.481	29.2%
Food Waste	253	31.6	16.9%	0.9	0.113	6.8%
Wood Waste	42	5.3	2.8%	0.275	0.034	2.1%
Textiles	82	10.3	5.5%	0.575	0.072	4.4%
Diapers	95	11.9	6.3%	0.55	0.069	4.2%
Other Organics	19	2.4	1.3%	0.15	0.019	1.1%
ORGANIC TOTALS	491	61.4	32.8%	2.45	0.306	18.6%
Fines	20	2.5	1.3%	0.125	0.016	0.9%
Other Inorganics	52	6.5	3.5%	0.175	0.022	1.3%
INORGANIC TOTALS	72	9.0	4.8%	0.3	0.038	2.3%
HHW	5	0.6	0.3%	0.05	0.006	0.4%
Electronic Waste	2	0.3	0.1%	0.025	0.003	0.2%
SPECIAL WASTE TOTALS	7	0.9	0.5%	0.075	0.009	0.6%
TOTAL	1498	187.3	100%	13.175	1.647	100%

Table 13.3 - St. Louis (South) Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	165	20.6	9.3%	1.975	0.247	14.3%
Newsprint	100	12.5	5.6%	0.625	0.078	4.5%
Magazines	68	8.5	3.8%	0.325	0.041	2.4%
High Grade Paper	82	10.3	4.6%	0.6	0.075	4.3%
Mixed Paper	182	22.8	10.2%	1.575	0.197	11.4%
PAPER TOTALS	597	74.6	33.5%	5.1	0.638	36.9%
Clear Glass	41	5.1	2.3%	0.15	0.019	1.1%
Brown Glass	34	4.3	1.9%	0.15	0.019	1.1%
Green Glass	21	2.6	1.2%	0.1	0.013	0.7%
Other Glass	3	0.4	0.2%	0.025	0.003	0.2%
GLASS TOTALS	99	12.4	5.6%	0.425	0.053	3.1%
Aluminum Cans	26	3.3	1.5%	0.3	0.038	2.2%
Other Aluminum	3	0.4	0.2%	0.025	0.003	0.2%
Non Ferrous	4	0.5	0.2%	0.025	0.003	0.2%
Food Cans	52	6.5	2.9%	0.275	0.034	2.0%
Ferrous	18	2.3	1.0%	0.1	0.013	0.7%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	103	12.9	5.8%	0.725	0.091	5.2%
PET #1	40	5.0	2.2%	0.475	0.059	3.4%
HDPE #2	33	4.1	1.9%	0.475	0.059	3.4%
Plastic Film	85	10.6	4.8%	1.4	0.175	10.1%
Other Plastic	154	19.3	8.6%	2.075	0.259	15.0%
PLASTIC TOTALS	312	39.0	17.5%	4.425	0.553	32.0%
Food Waste	295	36.9	16.6%	1.15	0.144	8.3%
Wood Waste	5	0.6	0.3%	0.025	0.003	0.2%
Textiles	55	6.9	3.1%	0.375	0.047	2.7%
Diapers	84	10.5	4.7%	0.275	0.034	2.0%
Other Organics	98	12.3	5.5%	0.65	0.081	4.7%
ORGANIC TOTALS	537	67.1	30.2%	2.475	0.309	17.9%
Fines	13	1.6	0.7%	0.125	0.016	0.9%
Other Inorganics	95	11.9	5.3%	0.475	0.059	3.4%
INORGANIC TOTALS	108	13.5	6.1%	0.6	0.075	4.3%
HHW	12	1.5	0.7%	0.05	0.006	0.4%
Electronic Waste	13	1.6	0.7%	0.025	0.003	0.2%
SPECIAL WASTE TOTALS	25	3.1	1.4%	0.075	0.009	0.5%
TOTAL	1781	222.6	100%	13.825	1.728	100%

Chart 13.1 - St. Louis Results Fall 2006 vs. Spring 2007
Percentage by Weight

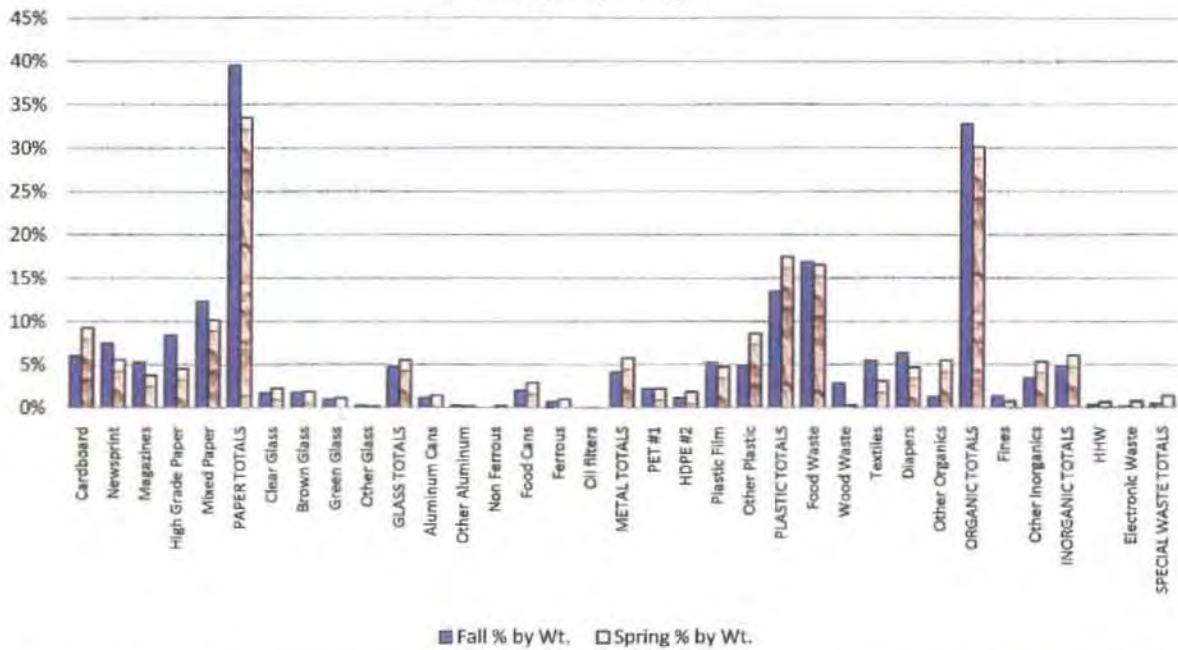
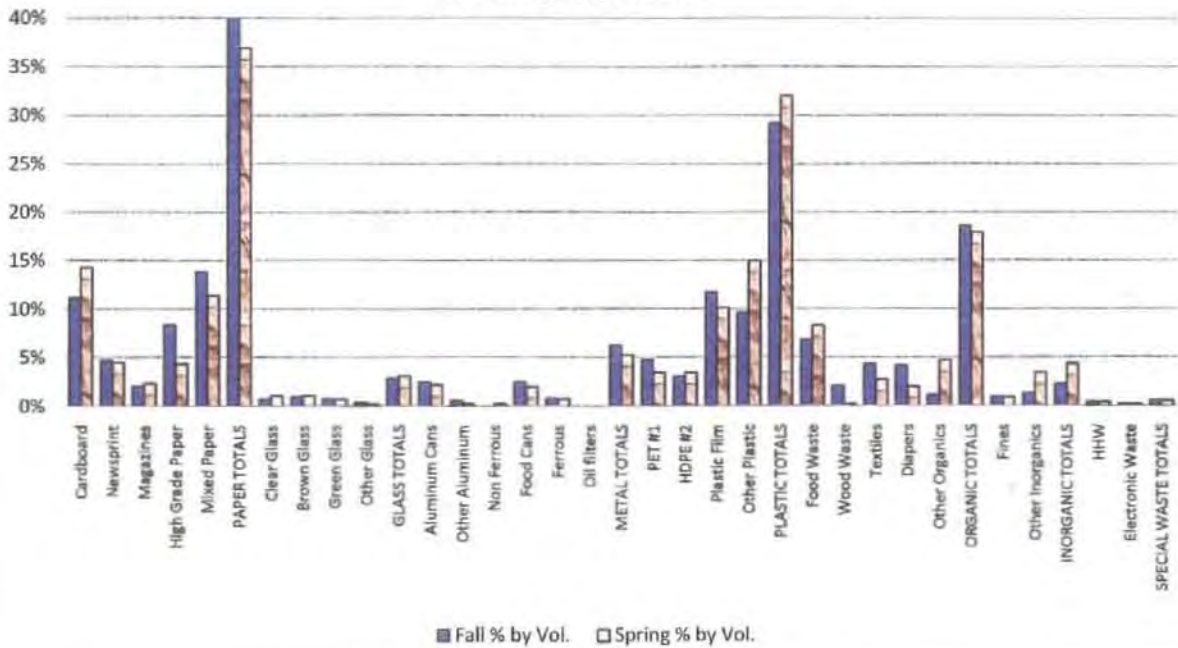


Chart 13.2 - St. Louis Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 13.4 - Waste Composition Summary and Comparison
St. Louis (South) Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 10/2-10/3/06				Spring Sort - 5/24-5/25/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	90	6.0%	1.475	11.2%	165	9.3%	1.98	14.3%	255	7.78%	3.45	12.78%	4.4%	7.8%	3.4%
Newsprint	112	7.5%	0.625	4.7%	100	5.6%	0.63	4.5%	212	6.47%	1.25	4.63%	13.3%	6.5%	-6.8%
Magazines	80	5.3%	0.275	2.1%	68	3.8%	0.33	2.4%	148	4.51%	0.60	2.22%	3.0%	4.5%	1.5%
High Grade Paper	126	8.4%	1.100	8.3%	82	4.6%	0.60	4.3%	208	6.34%	1.70	6.30%	2.8%	6.3%	3.5%
Mixed Paper	185	12.3%	1.825	13.9%	182	10.2%	1.58	11.4%	367	11.19%	3.40	12.58%	13.1%	11.2%	-1.9%
TOTAL PAPER	593	39.6%	5.300	40.2%	597	33.5%	5.10	36.9%	1,190	36.29%	10.40	38.52%	36.6%	36.3%	-0.3%
Clear Glass	26	1.7%	0.100	0.8%	41	2.3%	0.15	1.1%	67	2.04%	0.25	0.93%	3.8%	2.0%	-1.8%
Brown Glass	27	1.8%	0.125	0.9%	34	1.9%	0.15	1.1%	61	1.86%	0.28	1.02%	2.2%	1.9%	-0.3%
Green Glass	15	1.0%	0.100	0.8%	21	1.2%	0.10	0.7%	36	1.10%	0.20	0.74%	0.7%	1.1%	0.4%
Other Glass	4	0.3%	0.050	0.4%	3	0.2%	0.03	0.2%	7	0.21%	0.08	0.28%	0.7%	0.2%	-0.5%
TOTAL GLASS	72	4.8%	0.375	2.8%	99	5.6%	0.43	3.1%	171	5.22%	0.80	2.96%	7.4%	5.2%	-2.2%
Aluminum Cans	17	1.1%	0.325	2.5%	26	1.5%	0.30	2.2%	43	1.31%	0.63	2.31%	1.5%	1.3%	-0.2%
Other Aluminum	4	0.3%	0.075	0.6%	3	0.2%	0.03	0.2%	7	0.21%	0.10	0.37%	0.7%	0.2%	-0.5%
Non Ferrous	-	0.0%	-	0.0%	4	0.2%	0.03	0.2%	4	0.12%	0.03	0.09%	0.3%	0.1%	-0.2%
Food Cans	30	2.0%	0.325	2.5%	52	2.9%	0.28	2.0%	82	2.50%	0.60	2.22%	2.6%	2.5%	-0.1%
Ferrous	10	0.7%	0.100	0.8%	18	1.0%	0.10	0.7%	28	0.85%	0.20	0.74%	1.2%	0.9%	-0.3%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.0%	0.0%	0.0%
TOTAL METALS	61	4.1%	0.825	6.3%	103	5.8%	0.73	5.2%	164	5.00%	1.55	5.74%	6.3%	5.0%	-1.3%
PET #1	33	2.2%	0.625	4.7%	40	2.2%	0.48	3.4%	73	2.23%	1.10	4.07%	1.3%	2.2%	0.9%
HDPE #2	17	1.1%	0.400	3.0%	33	1.9%	0.48	3.4%	50	1.52%	0.88	3.24%	1.7%	1.5%	-0.2%
Plastic Film	79	5.3%	1.550	11.8%	85	4.8%	1.40	10.1%	164	5.00%	2.95	10.93%	2.9%	5.0%	2.1%
Other Plastic	73	4.9%	1.275	9.7%	154	8.6%	2.08	15.0%	227	6.92%	3.35	12.41%	6.5%	6.9%	0.4%
TOTAL PLASTIC	202	13.5%	3.850	29.2%	312	17.5%	4.43	32.0%	514	15.68%	8.28	30.65%	12.4%	15.7%	3.3%
Food Waste	253	16.9%	0.900	6.8%	295	16.6%	1.15	8.3%	548	16.71%	2.05	7.59%	18.0%	16.7%	-1.3%
Wood Waste	42	2.8%	0.275	2.1%	5	0.3%	0.03	0.2%	47	1.43%	0.30	1.11%	0.6%	1.4%	0.8%
Textiles	82	5.5%	0.575	4.4%	55	3.1%	0.38	2.7%	137	4.18%	0.95	3.52%	4.1%	4.2%	0.1%
Diapers	95	6.3%	0.550	4.2%	84	4.7%	0.28	2.0%	179	5.46%	0.83	3.06%	3.8%	5.5%	1.7%
Other Organics	19	1.3%	0.150	1.1%	98	5.5%	0.65	4.7%	117	3.57%	0.80	2.96%	5.0%	3.6%	-1.4%
TOTAL ORGANICS	491	32.8%	2.450	18.6%	537	30.2%	2.48	17.9%	1,028	31.35%	4.93	18.24%	31.5%	31.4%	-0.1%
Fines	20	1.3%	0.125	0.9%	13	0.7%	0.13	0.9%	33	1.01%	0.25	0.93%	4.3%	1.0%	-3.3%
Other Inorganics	52	3.5%	0.175	1.3%	95	5.3%	0.48	3.4%	147	4.48%	0.65	2.41%	1.8%	4.5%	2.7%
TOTAL INORGANICS	72	4.8%	0.300	2.3%	108	6.1%	0.60	4.3%	180	5.49%	0.90	3.33%	6.1%	5.5%	-0.6%
HHW	5	0.3%	0.050	0.4%	12	0.7%	0.05	0.4%	17	0.52%	0.10	0.37%	n/a	0.5%	0.5%
Electronic Waste	2	0.1%	0.025	0.2%	13	0.7%	0.03	0.2%	15	0.46%	0.05	0.19%	n/a	0.5%	0.5%
TOTAL SPECIAL WASTE	7	0.5%	0.075	0.6%	25	1.4%	0.08	0.5%	32	0.98%	0.15	0.56%		1.0%	1.0%
TOTAL COMPOSITION	1,498	100%	13.2	100%	1,781	100%	13.8	100%	3,279	100%	27.0	100%	100%	100%	0%

**Table 13.5 - Waste Composition Summary and Comparison St. Louis (South) Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 10/2-10/3/06				Spring Sort - 5/24-5/25/07				Total 2006-2007 Results for Site				Avg. All Sites	St. Louis	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	90	6.0%	1.475	11.2%	165	9.3%	1.98	14.3%	255	7.78%	3.45	12.78%	8.20%	7.78%	-0.4%
Newsprint	112	7.5%	0.625	4.7%	100	5.6%	0.63	4.5%	212	6.47%	1.25	4.63%	5.17%	6.47%	1.3%
Magazines	80	5.3%	0.275	2.1%	68	3.8%	0.33	2.4%	148	4.51%	0.60	2.22%	3.66%	4.51%	0.9%
High Grade Paper	126	8.4%	1.100	8.3%	82	4.6%	0.60	4.3%	208	6.34%	1.70	6.30%	6.40%	6.34%	-0.1%
Mixed Paper	185	12.3%	1.825	13.9%	182	10.2%	1.58	11.4%	367	11.19%	3.40	12.59%	10.20%	11.19%	1.0%
TOTAL PAPER	593	39.6%	5.300	40.2%	597	33.5%	5.10	36.9%	1,190	36.29%	10.40	38.52%	33.63%	36.29%	2.7%
Clear Glass	26	1.7%	0.100	0.8%	41	2.3%	0.15	1.1%	67	2.04%	0.25	0.93%	2.71%	2.04%	-0.7%
Brown Glass	27	1.8%	0.125	0.9%	34	1.9%	0.15	1.1%	61	1.86%	0.28	1.02%	1.77%	1.86%	0.1%
Green Glass	15	1.0%	0.100	0.8%	21	1.2%	0.10	0.7%	36	1.10%	0.20	0.74%	0.63%	1.10%	0.5%
Other Glass	4	0.3%	0.050	0.4%	3	0.2%	0.03	0.2%	7	0.21%	0.08	0.28%	0.32%	0.21%	-0.1%
TOTAL GLASS	72	4.8%	0.375	2.8%	99	5.6%	0.43	3.1%	171	5.22%	0.80	2.96%	5.44%	5.22%	-0.2%
Aluminum Cans	17	1.1%	0.325	2.5%	26	1.5%	0.30	2.2%	43	1.31%	0.63	2.31%	1.59%	1.31%	-0.3%
Other Aluminum	4	0.3%	0.075	0.6%	3	0.2%	0.03	0.2%	7	0.21%	0.10	0.37%	0.34%	0.21%	-0.1%
Non Ferrous	-	0.0%	-	0.0%	4	0.2%	0.03	0.2%	4	0.12%	0.03	0.09%	0.23%	0.12%	-0.1%
Food Cans	30	2.0%	0.325	2.5%	52	2.9%	0.28	2.0%	82	2.50%	0.60	2.22%	2.93%	2.50%	-0.4%
Ferrous	10	0.7%	0.100	0.8%	18	1.0%	0.10	0.7%	28	0.85%	0.20	0.74%	0.87%	0.85%	0.0%
Oil filters	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.00%	-	0.00%	0.08%	0.00%	-0.1%
TOTAL METALS	61	4.1%	0.825	6.3%	103	5.8%	0.73	5.2%	164	5.00%	1.55	5.74%	6.04%	5.00%	-1.0%
PET #1	33	2.2%	0.625	4.7%	40	2.2%	0.48	3.4%	73	2.23%	1.10	4.07%	2.55%	2.23%	-0.3%
HDPE #2	17	1.1%	0.400	3.0%	33	1.9%	0.48	3.4%	50	1.52%	0.88	3.24%	1.90%	1.52%	-0.4%
Plastic Film	79	5.3%	1.550	11.8%	85	4.8%	1.40	10.1%	164	5.00%	2.95	10.93%	4.82%	5.00%	0.2%
Other Plastic	73	4.9%	1.275	9.7%	154	8.6%	2.08	15.0%	227	6.92%	3.35	12.41%	7.99%	6.92%	-1.1%
TOTAL PLASTIC	202	13.5%	3.850	29.2%	312	17.5%	4.43	32.0%	514	15.68%	8.28	30.65%	17.25%	15.68%	-1.6%
Food Waste	253	16.9%	0.900	6.8%	295	16.6%	1.15	8.3%	548	16.71%	2.05	7.59%	17.22%	16.71%	-0.5%
Wood Waste	42	2.8%	0.275	2.1%	5	0.3%	0.03	0.2%	47	1.43%	0.30	1.11%	1.19%	1.43%	0.2%
Textiles	82	5.5%	0.575	4.4%	55	3.1%	0.38	2.7%	137	4.18%	0.95	3.52%	4.73%	4.18%	-0.6%
Diapers	95	6.3%	0.550	4.2%	84	4.7%	0.28	2.0%	179	5.46%	0.83	3.06%	5.48%	5.46%	0.0%
Other Organics	19	1.3%	0.150	1.1%	98	5.5%	0.65	4.7%	117	3.57%	0.80	2.96%	2.97%	3.57%	0.6%
TOTAL ORGANICS	491	32.8%	2.450	18.6%	537	30.2%	2.48	17.9%	1,028	31.35%	4.93	18.24%	31.59%	31.35%	-0.2%
Fines	20	1.3%	0.125	0.9%	13	0.7%	0.13	0.9%	33	1.01%	0.25	0.93%	0.93%	1.01%	0.1%
Other Inorganics	52	3.5%	0.175	1.3%	95	5.3%	0.48	3.4%	147	4.48%	0.65	2.41%	3.21%	4.48%	1.3%
TOTAL INORGANICS	72	4.8%	0.300	2.3%	108	6.1%	0.60	4.3%	180	5.49%	0.90	3.33%	4.14%	5.49%	1.3%
HHW	5	0.3%	0.050	0.4%	12	0.7%	0.05	0.4%	17	0.52%	0.10	0.37%	0.92%	0.52%	-0.4%
Electronic Waste	2	0.1%	0.025	0.2%	13	0.7%	0.03	0.2%	15	0.46%	0.05	0.19%	0.99%	0.46%	-0.5%
TOTAL SPECIAL WASTE	7	0.5%	0.075	0.6%	25	1.4%	0.08	0.5%	32	0.98%	0.15	0.56%	1.91%	0.98%	-0.9%
TOTAL COMPOSITION	1,498	100%	13.2	100%	1,781	100%	13.8	100%	3,279	100%	27.0	100%	100%	100%	0%

Chart 13.3 - St. Louis Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

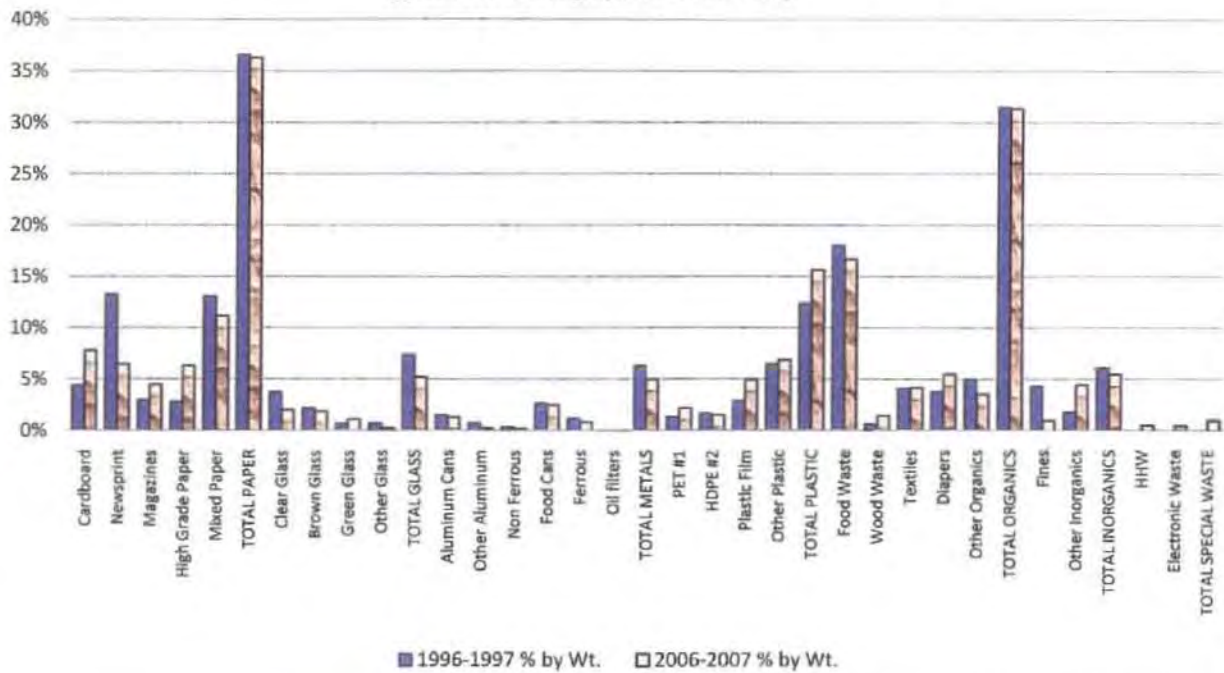


Chart 13.4 - St. Louis Results 2006-2007 vs. 2006-2007 Sort Average

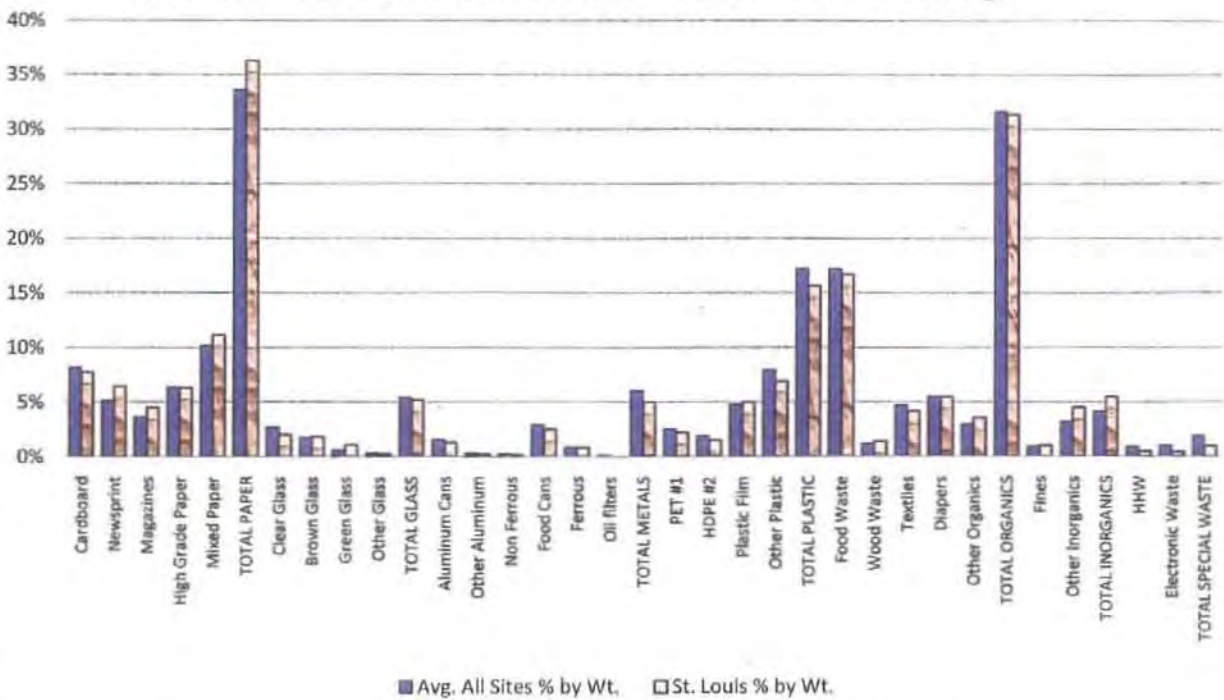


Table 13.6 - Special Waste Sorted at St. Louis (south) Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		
Musical Item (CD player, radio, boom box, etc.)		
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)		3
TV, VCR, DVD player, Game Stations, etc.		1
Remote Control or Game Controller		
Electronic Toy or Game		
Computer Hard Drive		
Computer Monitor		
Computer Keyboard		
Computer Mouse		1
Computer Printer		
Toner Cartridge		
Telephone/Answering Machine	1	
Cell Phones, Chargers		2
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	milk jug full	several
Paint, Thinner, etc.	3	
Automotive Fluids (oil, fuel, starting fluid, etc.)		
Oil Filters		
Household Cleaners	6	3
Yard & Garden Spray, Powder, etc.		
Insect & Animal Repellant Spray, Powder, Poison, etc.	3	3
Over The Counter & Prescription Medicine	8	
Beauty & Hygiene Products	6	4
Disposable Razors	16	several
Alkaline Batteries	16	16
Lithium & Other Batteries		3
Smoke Alarm		
Cigarette Lighter		1

Weight of Batteries Reported by RBRC

21.8 oz.

12.4 oz.

Appendix 14

Springfield Landfill

APPENDIX 14 – SPRINGFIELD LANDFILL

The city of Springfield owns and operates the Springfield Landfill. It is located approximately 9 miles north of Springfield off Highway 13 in Greene County which is part of Solid Waste Management District O.

Demographics:

	<u>Springfield</u>	<u>Greene County</u>
Population	151,823	240,391
Number of Households	64,779	98,003
Average Household Size	2.17	2.34
Median Household Income	\$29,563	\$34,157

Solid Waste Collection

Many private haulers service the Springfield area. The city requires those collecting trash from city residents to offer curbside recycling collection as well.

Solid Waste Disposal

The city of Springfield landfill received 132,062 tons of waste during calendar year 2006. The current tipping fee is \$28.65 per ton.

Waste Reduction, Recycling, and Recovery Programs

The city of Springfield has had a "full menu" of environmental programs for many years. They operate drop-off locations for yard waste and recyclables as well as a permanent household chemical collection center. Over 3400 tons of recyclables were received in 2006 while over 150,000 cubic yards were accepted at the Yard Waste Recycling Center and over 61,600 pounds of material at the HCCC. They process mulch and compost and market several varieties to the public. In mid 2006 the city landfill gas to energy facility was brought online converting the landfill's methane to electricity.

Private recycling processing facilities sort and market the recyclables collected in the Springfield area.

Springfield Landfill Sort Results

Sampling information and composition results are listed in Tables 14.1 through 14.6 and exhibited in Charts 14.1 through 14.4. Nothing extraordinary was noted by the sorters during the events. Compared to the 1996-1997 WCS, Springfield's waste stream now contains 4.1% less Paper and 2.9% more Plastic by weight. Subcategories showing large swings in the Paper category include High Grade Paper (5% more) and Mixed Paper (8.7% less).

When compared to the 2006-2007 overall average, however, these subcategories were close to norm. The categories with the greatest variance from the overall average by weight are Paper (1.9% more) and Organics (4.6% less). Comparing categories and subcategories to the other sites sampled in the 2006-2007 study, Springfield had the highest percentage by weight in Newsprint(7.04), High Grade Paper(4.51), Food Cans(3.82), and Household Hazardous Waste(1.68) while having the highest percentage by volume of Mixed Paper(13.48), Total Paper(40.01), HDPE #2 Plastic(4.83) and Household Hazardous Waste(1.08). Springfield

had the lowest percentage by weight of Textiles(3) and Total Organics(26.98) as well as having the lowest percentage by volume of Textiles(1.73) and Total Organics(13.77).

Table 14.1 - Sample Summary - Springfield Landfill

Fall 2006 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	263	1.9	90%	10%	Springfield
2	173	1.5	50%	50%	Bolivar
3	222	1.6	70%	30%	Fairgrove/Strafford
4	241	1.8	90%	10%	North Springfield
5	290	2.5	95%	5%	Lawrence County
6	301	2.6	90%	10%	Fairgrove & Hwy CC
7	267	2.3	95%	5%	South Springfield
8	249	2.0	80%	20%	South Springfield
Total Fall	2006	16.2			
Average	251	2.0	82.5%	17.5%	
Spring 2007 Sample #	Sample Size		Composition		Collection Location
	Weight(lbs)	Volume(cy)	Res.	Comm.	
1	297	2.4	80%	20%	Rural Cedar County
2	237	2.0	90%	10%	Rural Cedar County
3	231	1.9	90%	10%	Rural North Springfield
4	218	2.0	90%	10%	Osceola
5	239	2.5	90%	10%	North Springfield
6	232	2.4	90%	10%	Rural North Springfield
7	241	2.3	100%	0%	Fairplay
8	335	2.9	90%	10%	Bolivar
Total Spring	2030	18.5			
Average	254	2.3	90%	10%	
Site Total	4036	34.7			
Average	252	2.2	86%	14%	
Estimated Waste (lbs.) Accepted at Site During Sample Periods					2,597,941

Table 14.2 - Springfield Landfill Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	133	16.6	6.6%	2.05	0.256	12.7%
Newsprint	192	24.0	9.6%	0.9	0.113	5.6%
Magazines	109	13.6	5.4%	0.3	0.038	1.9%
High Grade Paper	135	16.9	6.7%	1.05	0.131	6.5%
Mixed Paper	170	21.3	8.5%	1.825	0.228	11.3%
PAPER TOTALS	739	92.4	36.8%	6.125	0.766	37.9%
Clear Glass	63	7.9	3.1%	0.2	0.025	1.2%
Brown Glass	49	6.1	2.4%	0.225	0.028	1.4%
Green Glass	17	2.1	0.8%	0.1	0.013	0.6%
Other Glass	7	0.9	0.3%	0.05	0.006	0.3%
GLASS TOTALS	136	17.0	6.8%	0.575	0.072	3.6%
Aluminum Cans	29	3.6	1.4%	0.325	0.041	2.0%
Other Aluminum	11	1.4	0.5%	0.15	0.019	0.9%
Non Ferrous	14	1.8	0.7%	0.1	0.013	0.6%
Food Cans	57	7.1	2.8%	0.45	0.056	2.8%
Ferrous	23	2.9	1.1%	0.175	0.022	1.1%
Oil filters (one commerci.)	18	2.3	0.9%	0.075	0.009	0.5%
METAL TOTALS	152	19.0	7.6%	1.275	0.159	7.9%
PET #1	59	7.4	2.9%	0.75	0.094	4.6%
HDPE #2	35	4.4	1.7%	0.7	0.088	4.3%
Plastic Film	87	10.9	4.3%	1.475	0.184	9.1%
Other Plastic	147	18.4	7.3%	2.125	0.266	13.2%
PLASTIC TOTALS	328	41.0	16.4%	5.05	0.631	31.3%
Food Waste	285	35.6	14.2%	1.15	0.144	7.1%
Wood Waste	25	3.1	1.2%	0.075	0.009	0.5%
Textiles	47	5.9	2.3%	0.275	0.034	1.7%
Diapers	122	15.3	6.1%	0.575	0.072	3.6%
Other Organics	30	3.8	1.5%	0.25	0.031	1.5%
ORGANIC TOTALS	509	63.6	25.4%	2.325	0.291	14.4%
Fines	19	2.4	0.9%	0.175	0.022	1.1%
Other Inorganics	65	8.1	3.2%	0.375	0.047	2.3%
INORGANIC TOTALS	84	10.5	4.2%	0.55	0.069	3.4%
HHW	43	5.4	2.1%	0.175	0.022	1.1%
Electronic Waste	15	1.9	0.7%	0.075	0.009	0.5%
SPECIAL WASTE TOTALS	58	7.3	2.9%	0.25	0.031	1.5%
TOTAL	2006	250.8	100%	16.15	2.019	100%

Table 14.3 - Springfield Landfill Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	172	21.5	8.5%	2.55	0.319	13.8%
Newsprint	92	11.5	4.5%	0.525	0.066	2.8%
Magazines	73	9.1	3.6%	0.225	0.028	1.2%
High Grade Paper	139	17.4	6.8%	1.6	0.200	8.6%
Mixed Paper	219	27.4	10.8%	2.85	0.356	15.4%
PAPER TOTALS	695	86.9	34.2%	7.75	0.969	41.8%
Clear Glass	59	7.4	2.9%	0.2	0.025	1.1%
Brown Glass	35	4.4	1.7%	0.2	0.025	1.1%
Green Glass	13	1.6	0.6%	0.15	0.019	0.8%
Other Glass	9	1.1	0.4%	0.05	0.006	0.3%
GLASS TOTALS	116	14.5	5.7%	0.6	0.075	3.2%
Aluminum Cans	35	4.4	1.7%	0.45	0.056	2.4%
Other Aluminum	9	1.1	0.4%	0.125	0.016	0.7%
Non Ferrous	4	0.5	0.2%	0.05	0.006	0.3%
Food Cans	97	12.1	4.8%	0.475	0.059	2.6%
Ferrous	20	2.5	1.0%	0.075	0.009	0.4%
Oil filters (one)	3	0.4	0.1%	0.075	0.009	0.4%
METAL TOTALS	168	21.0	8.3%	1.25	0.156	6.7%
PET #1	48	6.0	2.4%	0.875	0.109	4.7%
HDPE #2	50	6.3	2.5%	0.975	0.122	5.3%
Plastic Film	124	15.5	6.1%	1.975	0.247	10.7%
Other Plastic	152	19.0	7.5%	2	0.250	10.8%
PLASTIC TOTALS	374	46.8	18.4%	5.825	0.728	31.4%
Food Waste	344	43.0	16.9%	1.375	0.172	7.4%
Wood Waste	25	3.1	1.2%	0.125	0.016	0.7%
Textiles	74	9.3	3.6%	0.325	0.041	1.8%
Diapers	121	15.1	6.0%	0.525	0.066	2.8%
Other Organics	16	2.0	0.8%	0.1	0.013	0.5%
ORGANIC TOTALS	580	72.5	28.6%	2.45	0.306	13.2%
Fines	16	2.0	0.8%	0.2	0.025	1.1%
Other Inorganics	37	4.6	1.8%	0.125	0.016	0.7%
INORGANIC TOTALS	53	6.6	2.6%	0.325	0.041	1.8%
HHW	25	3.1	1.2%	0.2	0.025	1.1%
Electronic Waste	19	2.4	0.9%	0.125	0.016	0.7%
SPECIAL WASTE TOTALS	44	5.5	2.2%	0.325	0.041	1.8%
TOTAL	2030	253.8	100%	18.525	2.316	100%

Chart 14.1 - Springfield Results Fall 2006 vs Spring 2007
Percentage by Weight

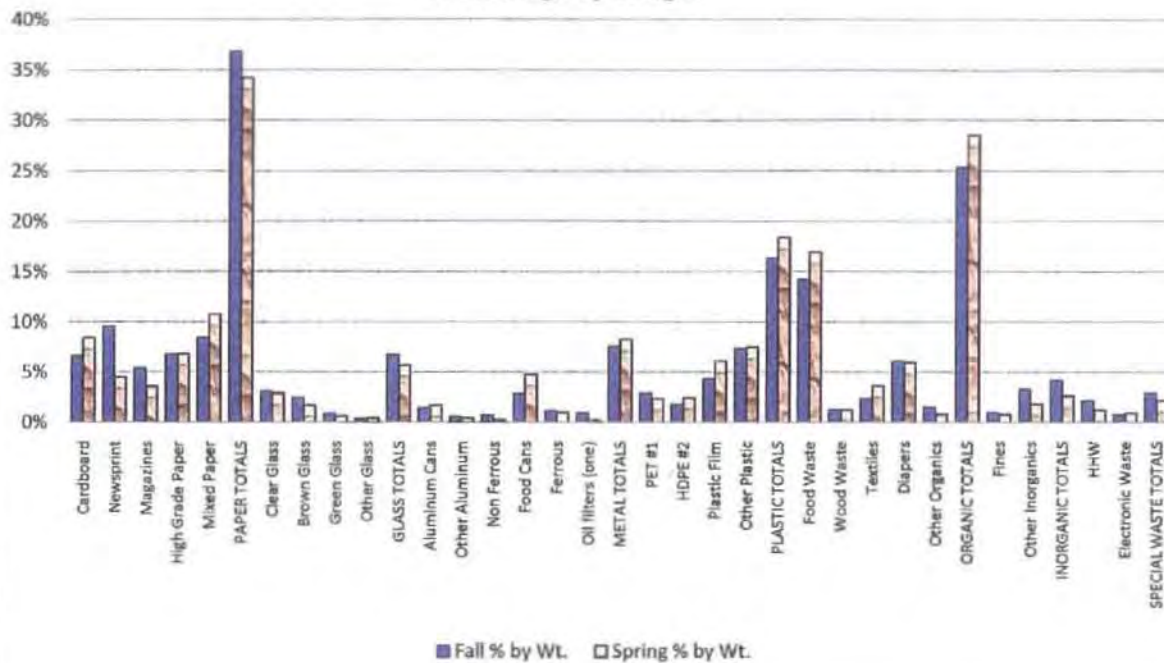
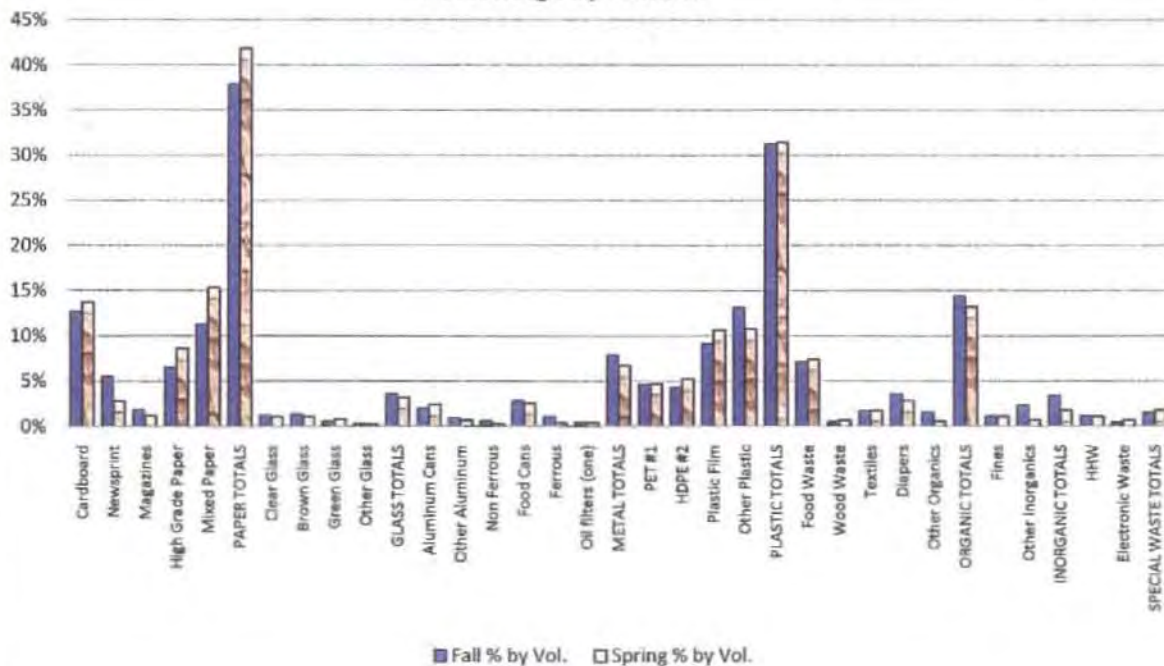


Chart 14.2 - Springfield Results Fall 2006 vs Spring 2007
Percentage by Volume



**Table 14.4 - Waste Composition Summary and Comparison
City of Springfield Landfill 1996-1997 to 2006-2007**

	Fall Sort - 11/2-11/3/06				Spring Sort - 4/18-4/19/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	133	6.6%	2.050	12.7%	172	8.5%	2.55	13.8%	305	7.56%	4.60	13.27%	7.40%	7.56%	0.2%
Newsprint	192	9.6%	0.900	5.6%	92	4.5%	0.53	2.8%	284	7.04%	1.43	4.11%	9.50%	7.04%	-2.5%
Magazines	109	5.4%	0.300	1.9%	73	3.6%	0.23	1.2%	182	4.51%	0.53	1.51%	2.60%	4.51%	1.9%
High Grade Paper	135	6.7%	1.050	6.5%	139	6.8%	1.60	8.6%	274	6.79%	2.65	7.64%	1.80%	6.79%	5.0%
Mixed Paper	170	8.5%	1.825	11.3%	219	10.8%	2.85	15.4%	389	9.64%	4.68	13.48%	18.30%	9.64%	-8.7%
TOTAL PAPER	739	36.8%	6.125	37.9%	695	34.2%	7.75	41.8%	1,434	35.53%	13.88	40.01%	39.60%	35.53%	-4.1%
Clear Glass	63	3.1%	0.200	1.2%	59	2.9%	0.20	1.1%	122	3.02%	0.40	1.15%	3.10%	3.02%	-0.1%
Brown Glass	49	2.4%	0.225	1.4%	35	1.7%	0.20	1.1%	84	2.08%	0.43	1.23%	1.40%	2.08%	0.7%
Green Glass	17	0.8%	0.100	0.6%	13	0.6%	0.15	0.8%	30	0.74%	0.25	0.72%	0.40%	0.74%	0.3%
Other Glass	7	0.3%	0.050	0.3%	9	0.4%	0.05	0.3%	16	0.40%	0.10	0.29%	0.40%	0.40%	0.0%
TOTAL GLASS	136	6.6%	0.575	3.6%	116	5.7%	0.60	3.2%	252	6.24%	1.18	3.39%	5.30%	6.24%	0.9%
Aluminum Cans	29	1.4%	0.325	2.0%	35	1.7%	0.45	2.4%	64	1.59%	0.78	2.24%	1.40%	1.59%	0.2%
Other Aluminum	11	0.5%	0.150	0.9%	9	0.4%	0.13	0.7%	20	0.50%	0.28	0.79%	0.70%	0.50%	-0.2%
Non Ferrous	14	0.7%	0.100	0.6%	4	0.2%	0.05	0.3%	18	0.45%	0.15	0.43%	0.10%	0.45%	0.3%
Food Cans	57	2.8%	0.450	2.8%	97	4.8%	0.48	2.6%	154	3.82%	0.93	2.67%	4.00%	3.82%	-0.2%
Ferrous	23	1.1%	0.175	1.1%	20	1.0%	0.08	0.4%	43	1.07%	0.25	0.72%	1.10%	1.07%	0.0%
Oil filters	18	0.9%	0.075	0.5%	3	0.1%	0.08	0.4%	21	0.52%	0.15	0.43%	0.10%	0.52%	0.4%
TOTAL METALS	152	7.6%	1.275	7.9%	168	8.3%	1.25	6.7%	320	7.93%	2.63	7.28%	7.40%	7.93%	0.5%
PET #1	59	2.9%	0.750	4.6%	48	2.4%	0.88	4.7%	107	2.65%	1.63	4.69%	2.20%	2.65%	0.5%
HDPE #2	35	1.7%	0.700	4.3%	50	2.5%	0.98	5.3%	85	2.11%	1.68	4.83%	2.30%	2.11%	-0.2%
Plastic Film	87	4.3%	1.475	9.1%	124	6.1%	1.98	10.7%	211	5.23%	3.45	9.95%	4.10%	5.23%	1.1%
Other Plastic	147	7.3%	2.125	13.2%	152	7.5%	2.00	10.8%	299	7.41%	4.13	11.90%	5.90%	7.41%	1.5%
TOTAL PLASTIC	328	16.4%	5.050	31.3%	374	18.4%	5.83	31.4%	702	17.39%	10.88	31.36%	14.50%	17.39%	2.9%
Food Waste	285	14.2%	1.150	7.1%	344	16.9%	1.38	7.4%	629	15.58%	2.53	7.28%	16.80%	15.58%	-1.2%
Wood Waste	25	1.2%	0.075	0.5%	25	1.2%	0.13	0.7%	50	1.24%	0.20	0.58%	1.00%	1.24%	0.2%
Textiles	47	2.3%	0.275	1.7%	74	3.6%	0.33	1.8%	121	3.00%	0.60	1.73%	3.70%	3.00%	-0.7%
Diapers	122	6.1%	0.575	3.6%	121	6.0%	0.53	2.8%	243	6.02%	1.10	3.17%	3.80%	6.02%	2.2%
Other Organics	30	1.5%	0.250	1.5%	16	0.8%	0.10	0.5%	46	1.14%	0.35	1.01%	3.00%	1.14%	-1.9%
TOTAL ORGANICS	509	25.4%	2.325	14.4%	580	28.6%	2.45	13.2%	1,089	26.98%	4.78	13.77%	28.30%	26.98%	-1.3%
Fines	19	0.9%	0.175	1.1%	16	0.8%	0.20	1.1%	35	0.87%	0.38	1.08%	3.80%	0.87%	-2.9%
Other Inorganics	65	3.2%	0.375	2.3%	37	1.8%	0.13	0.7%	102	2.53%	0.50	1.44%	1.30%	2.53%	1.2%
TOTAL INORGANICS	84	4.2%	0.550	3.4%	53	2.6%	0.33	1.8%	137	3.39%	0.88	2.52%	5.10%	3.39%	-1.7%
HHW	43	2.1%	0.175	1.1%	25	1.2%	0.20	1.1%	68	1.68%	0.38	1.08%	n/a	1.68%	1.7%
Electronic Waste	15	0.7%	0.075	0.5%	19	0.9%	0.13	0.7%	34	0.84%	0.20	0.58%	n/a	0.84%	0.8%
TOTAL SPECIAL WASTE	58	2.9%	0.250	1.5%	44	2.2%	0.33	1.8%	102	2.53%	0.58	1.66%		2.53%	2.5%
TOTAL COMPOSITION	2,006	100%	16.2	100%	2,030	100%	18.5	100%	4,036	100%	34.7	100%	100%	100%	0%

**Table 14.5 - Waste Composition Summary and Comparison Springfield Landfill
Site to 2006-2007 Overall Average**

	Fall Sort - 11/2-11/3/06				Spring Sort - 4/18-4/19/07				Total 2006-2007 Results for Site				Avg. All Sites	Springfield	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	133	6.6%	2.050	12.7%	172	8.5%	2.55	13.8%	305	7.56%	4.60	13.27%	8.20%	7.56%	-0.6%
Newsprint	192	9.6%	0.900	5.6%	92	4.5%	0.53	2.8%	284	7.04%	1.43	4.11%	5.17%	7.04%	1.9%
Magazines	109	5.4%	0.300	1.9%	73	3.6%	0.23	1.2%	182	4.51%	0.53	1.51%	3.66%	4.51%	0.8%
High Grade Paper	135	6.7%	1.050	6.5%	139	6.8%	1.60	8.6%	274	6.79%	2.65	7.64%	6.40%	6.79%	0.4%
Mixed Paper	170	8.5%	1.825	11.3%	219	10.8%	2.85	15.4%	389	9.64%	4.68	13.48%	10.20%	9.64%	-0.6%
TOTAL PAPER	739	36.8%	6.125	37.9%	695	34.2%	7.75	41.8%	1,434	35.53%	13.88	40.01%	33.63%	35.53%	1.9%
Clear Glass	63	3.1%	0.200	1.2%	59	2.9%	0.20	1.1%	122	3.02%	0.40	1.15%	2.71%	3.02%	0.3%
Brown Glass	49	2.4%	0.225	1.4%	35	1.7%	0.20	1.1%	84	2.08%	0.43	1.23%	1.77%	2.08%	0.3%
Green Glass	17	0.8%	0.100	0.6%	13	0.6%	0.15	0.8%	30	0.74%	0.25	0.72%	0.63%	0.74%	0.1%
Other Glass	7	0.3%	0.050	0.3%	9	0.4%	0.05	0.3%	16	0.40%	0.10	0.29%	0.32%	0.40%	0.1%
TOTAL GLASS	136	6.8%	0.575	3.6%	116	5.7%	0.60	3.2%	252	6.24%	1.18	3.39%	5.44%	6.24%	0.8%
Aluminum Cans	29	1.4%	0.325	2.0%	35	1.7%	0.45	2.4%	64	1.59%	0.78	2.24%	1.59%	1.59%	0.0%
Other Aluminum	11	0.5%	0.150	0.9%	9	0.4%	0.13	0.7%	20	0.50%	0.28	0.79%	0.34%	0.50%	0.2%
Non Ferrous	14	0.7%	0.100	0.6%	4	0.2%	0.05	0.3%	18	0.45%	0.15	0.43%	0.23%	0.45%	0.2%
Food Cans	57	2.8%	0.450	2.8%	97	4.8%	0.48	2.6%	154	3.82%	0.93	2.67%	2.93%	3.82%	0.9%
Ferrous	23	1.1%	0.175	1.1%	20	1.0%	0.08	0.4%	43	1.07%	0.25	0.72%	0.87%	1.07%	0.2%
Oil filters	18	0.9%	0.075	0.5%	3	0.1%	0.08	0.4%	21	0.52%	0.15	0.43%	0.08%	0.52%	0.4%
TOTAL METALS	152	7.6%	1.275	7.9%	168	8.3%	1.25	6.7%	320	7.93%	2.53	7.28%	6.04%	7.93%	1.9%
PET #1	59	2.9%	0.750	4.6%	48	2.4%	0.88	4.7%	107	2.65%	1.63	4.69%	2.55%	2.65%	0.1%
HDPE #2	35	1.7%	0.700	4.3%	50	2.5%	0.98	5.3%	85	2.11%	1.68	4.83%	1.90%	2.11%	0.2%
Plastic Film	87	4.3%	1.475	9.1%	124	6.1%	1.98	10.7%	211	5.23%	3.45	9.95%	4.82%	5.23%	0.4%
Other Plastic	147	7.3%	2.125	13.2%	152	7.5%	2.00	10.8%	299	7.41%	4.13	11.90%	7.99%	7.41%	-0.6%
TOTAL PLASTIC	328	16.4%	5.050	31.3%	374	18.4%	5.83	31.4%	702	17.39%	10.88	31.36%	17.25%	17.39%	0.1%
Food Waste	285	14.2%	1.150	7.1%	344	16.8%	1.38	7.4%	629	15.58%	2.53	7.28%	17.22%	15.58%	-1.6%
Wood Waste	25	1.2%	0.075	0.5%	25	1.2%	0.13	0.7%	50	1.24%	0.20	0.58%	1.19%	1.24%	0.0%
Textiles	47	2.3%	0.275	1.7%	74	3.6%	0.33	1.8%	121	3.00%	0.60	1.73%	4.73%	3.00%	-1.7%
Diapers	122	6.1%	0.575	3.6%	121	6.0%	0.53	2.8%	243	6.02%	1.10	3.17%	5.48%	6.02%	0.5%
Other Organics	30	1.5%	0.250	1.5%	16	0.8%	0.10	0.5%	46	1.14%	0.35	1.01%	2.97%	1.14%	-1.8%
TOTAL ORGANICS	509	25.4%	2.325	14.4%	580	28.6%	2.45	13.2%	1,089	26.98%	4.78	13.77%	31.59%	26.98%	-4.6%
Fines	19	0.9%	0.175	1.1%	16	0.8%	0.20	1.1%	35	0.87%	0.38	1.08%	0.93%	0.87%	-0.1%
Other Inorganics	65	3.2%	0.375	2.3%	37	1.8%	0.13	0.7%	102	2.53%	0.50	1.44%	3.21%	2.53%	-0.7%
TOTAL INORGANICS	84	4.2%	0.550	3.4%	53	2.6%	0.33	1.8%	137	3.39%	0.88	2.52%	4.14%	3.39%	-0.7%
HHW	43	2.1%	0.175	1.1%	25	1.2%	0.20	1.1%	68	1.68%	0.38	1.08%	0.92%	1.68%	0.8%
Electronic Waste	15	0.7%	0.075	0.5%	19	0.9%	0.13	0.7%	34	0.84%	0.20	0.58%	0.99%	0.84%	-0.1%
TOTAL SPECIAL WASTE	58	2.9%	0.250	1.5%	44	2.2%	0.33	1.8%	102	2.53%	0.58	1.66%	1.91%	2.53%	0.6%
TOTAL COMPOSITION	2,006	100%	16.2	100%	2,030	100%	18.5	100%	4,036	100%	34.7	100%	100%	100%	0%

Chart 14.3 - Springfield Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

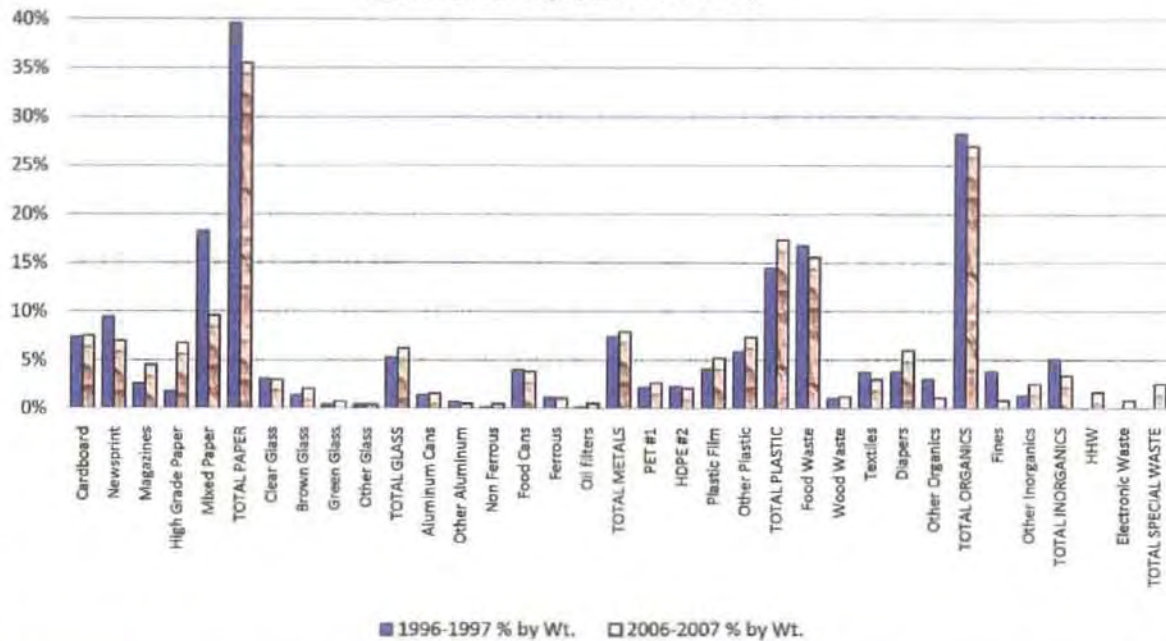


Chart 14.4 - Springfield Results 2006-2007 vs. 2006-2007 Sort Average

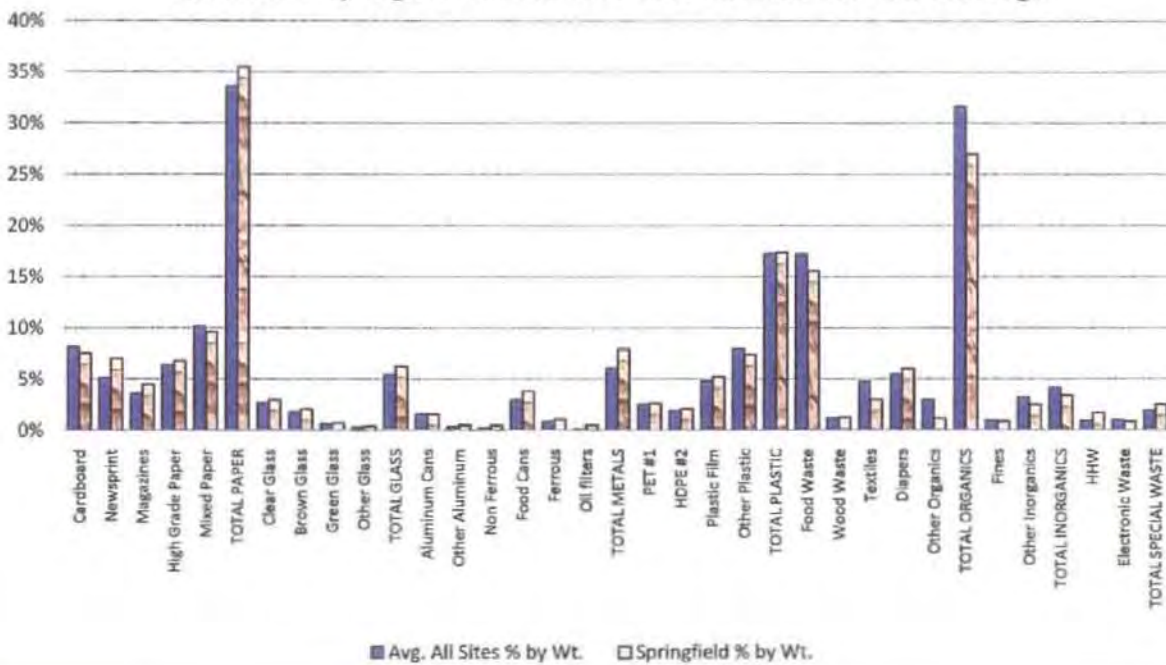


Table 14.6 - Special Waste Sorted at Springfield Landfill

	Fall 2006	Spring 2007
ELECTRONICS		
Musical item (CD player, radio, boom box, etc.)	1	
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	2	1
TV, VCR, DVD player, Game Stations, etc.		1
Remote Control or Game Controller		
Electronic Toy or Game	4	
Computer Hard Drive	1	
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		1
Toner Cartridge	1	
Telephone/Answering Machine		
Cell Phones, Chargers	2	2
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	2 full milk jugs	several
Paint, Thinner, etc.	3	1
Automotive Fluids (oil, fuel, starting fluid, etc.)	gal used oil	1
Oil Filters		
Household Cleaners	6	2
Yard & Garden Spray, Powder, etc.		3
Insect & Animal Repellant Spray, Powder, Poison, etc.	3	3
Over The Counter & Prescription Medicine	28	8
Beauty & Hygiene Products	7	
Disposable Razors	11	several
Alkaline Batteries	38	5
Lithium & Other Batteries	4	
Smoke Alarm		

Weight of Batteries Reported by RBRC

50 oz.

5.1 oz.

Appendix 15

West Plains Transfer Station

APPENDIX 15 – WEST PLAINS TRANSFER STATION

The city of West Plains owns and operates the West Plains Transfer Station. It is located near Highway 63 in West Plains which is in Howell County, part of Solid Waste Management District P.

Demographics:

	<u>West Plains</u>	<u>Howell County</u>
Population	10,739	37,238
Number of Households	4,518	14,805
Average Household Size	2.28	2.47
Median Household Income	\$24,122	\$25,628

Solid Waste Collection

The city of West Plains runs a collection system, as do various private haulers in the area.

Solid Waste Disposal

The city of West Plains hauls bulked waste from their transfer station to the Hartville Landfill, 67 miles away. The public tipping fee at the West Plains Transfer Station is \$40 per ton and the site handles approximately 100 tons per day.

Waste Reduction, Recycling, and Recovery Programs

West Plains has had a curbside recycling program since 1990 and they operate a recycling facility adjacent to their refuse transfer station. Bins are provided to participating citizens and typical fibers and containers are collected, each commodity in its own bag within the curbside bin. Over 1,200 tons of recycling were processed at the recycling facility in 2006. The Solid Waste Management District has a mobile collection unit that serves the area once every spring and once every other fall.

West Plains Transfer Station Sort Results

Sampling information and composition results are listed in Tables 15.1 through 15.6 and exhibited in Charts 15.1 through 15.4. There were no extraordinary observances noted by the sorters during the West Plains sorts. When compared to the results at West Plains during the 1996-1997 WCS, the West Plains waste stream has 5% less Paper, 2.2% more Glass, 2.5% more Plastics, and 2.2% more Organics by weight.

Compared to the 2006-2007 overall sort average, West Plains had 1.6% more Paper, 2.1% more Plastic, 1.5% fewer Organics and 2.1% fewer Inorganics. Considering the categories and subcategories from all sites, West Plains had the highest percentage by weight of Mixed Paper (12.62), HDPE #2(2.14), Total Plastic(19.3), and the highest percentage by volume of Other Plastic(14.42). The lowest percentage by weight was recorded at West Plains for Other Aluminum(.22), Other Inorganics(1.12), Total Inorganics(2), and Household Hazardous Waste(.47), while the lowest percentage by volume was determined for West Plains in Cardboard(12.1), Other Glass(.15), Other Inorganics(.98), and Total Inorganics(2.03).

Table 15.1 - Sample Summary - West Plains Transfer Station

Fall 2006		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	239	1.7	70%	30%	West Plains	
2	204	1.6	70%	30%	West Plains	
3	292	2.6	90%	10%	Rural South of West Plains	
4	249	1.7	90%	10%	Mountain View	
5	284	2.4	90%	10%	Pottersville/Highway 160	
6	224	1.7	50%	50%	Willow Springs	
7	238	2.0	80%	20%	Willow Springs	
8	357	3.0	60%	40%	West Plains	
Total Fall	2087	16.7				
Average	261	2.1	75%	25%		
Spring 2007		Sample Size		Composition		Collection
Sample #	Weight(lbs)	Volume(cy)	Res.	Comm.	Location	
1	221	1.7	97%	3%	West Plains	
2	210	2.0	50%	50%	Alton	
3	243	2.1	90%	10%	SE West Plains	
4	233	1.9	90%	10%	West Plains	
5	233	1.8	90%	10%	West Plains	
6	244	2.4	90%	10%	Willow Springs	
7	214	2.2	90%	10%	West Plains	
8	325	2.6	60%	40%	West Plains & Medical Clinic	
Total Spring	1923	16.6				
Average	240	2.1	82%	18%		
Site Total	4010	33.3				
Average	251	2.1	79%	21%		
Estimated Weight Accepted During Sample Periods						600,000

Table 15.2 - West Plains Transfer Station Fall 2006 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	176	22.0	8.4%	1.85	0.231	11.1%
Newsprint	86	10.8	4.1%	0.475	0.059	2.9%
Magazines	73	9.1	3.5%	0.325	0.041	2.0%
High Grade Paper	136	17.0	6.5%	1.125	0.141	6.8%
Mixed Paper	261	32.6	12.5%	2.25	0.281	13.5%
PAPER TOTALS	732	91.5	35.1%	6.025	0.753	36.2%
Clear Glass	75	9.4	3.6%	0.3	0.038	1.8%
Brown Glass	50	6.3	2.4%	0.2	0.025	1.2%
Green Glass	12	1.5	0.6%	0.05	0.006	0.3%
Other Glass	8	1.0	0.4%	0.025	0.003	0.2%
GLASS TOTALS	145	18.1	6.9%	0.575	0.072	3.5%
Aluminum Cans	30	3.8	1.4%	0.4	0.050	2.4%
Other Aluminum	6	0.8	0.3%	0.075	0.009	0.5%
Non Ferrous	6	0.8	0.3%	0.05	0.006	0.3%
Food Cans	64	8.0	3.1%	0.55	0.069	3.3%
Ferrous	25	3.1	1.2%	0.15	0.019	0.9%
Oil filters (one)	1	0.1	0.0%	0.001	0.000	0.0%
METAL TOTALS	132	16.5	6.3%	1.226	0.153	7.4%
PET #1	53	6.6	2.5%	0.725	0.091	4.4%
HDPE #2	39	4.9	1.9%	0.7	0.088	4.2%
Plastic Film	81	10.1	3.9%	1.375	0.172	8.3%
Other Plastic	190	23.8	9.1%	2.35	0.294	14.1%
PLASTIC TOTALS	363	45.4	17.4%	5.15	0.644	30.9%
Food Waste	360	45.0	17.2%	1.575	0.197	9.5%
Wood Waste	25	3.1	1.2%	0.125	0.016	0.8%
Textiles	109	13.6	5.2%	0.6	0.075	3.6%
Diapers	88	11.0	4.2%	0.475	0.059	2.9%
Other Organics	51	6.4	2.4%	0.425	0.053	2.6%
ORGANIC TOTALS	633	79.1	30.3%	3.2	0.400	19.2%
Fines	19	2.4	0.9%	0.125	0.016	0.8%
Other Inorganics	35	4.4	1.7%	0.225	0.028	1.4%
INORGANIC TOTALS	54	6.8	2.6%	0.35	0.044	2.1%
HHW	9	1.1	0.4%	0.025	0.003	0.2%
Electronic Waste	19	2.4	0.9%	0.1	0.013	0.6%
SPECIAL WASTE TOTALS	28	3.5	1.3%	0.125	0.016	0.8%
TOTAL	2087	260.9	100%	16.651	2.081	100%

Table 15.3 - West Plains Transfer Station Spring 2007 Sort Results

	WT.(lbs.)	Avg.Wt.Per Load	% by Wt.	VOL.(c.y.)	Avg.Vol.Per Load	% by Vol.
Cardboard	156	19.5	8.1%	2.175	0.272	13.1%
Newsprint	72	9.0	3.7%	0.5	0.063	3.0%
Magazines	80	10.0	4.2%	0.375	0.047	2.3%
High Grade Paper	128	16.0	6.7%	0.9	0.113	5.4%
Mixed Paper	245	30.6	12.7%	1.975	0.247	11.9%
PAPER TOTALS	681	85.1	35.4%	5.925	0.741	35.6%
Clear Glass	68	8.5	3.5%	0.2	0.025	1.2%
Brown Glass	40	5.0	2.1%	0.2	0.025	1.2%
Green Glass	3	0.4	0.2%	0.05	0.006	0.3%
Other Glass	1	0.1	0.1%	0.025	0.003	0.2%
GLASS TOTALS	112	14.0	5.8%	0.475	0.059	2.9%
Aluminum Cans	35	4.4	1.8%	0.525	0.066	3.2%
Other Aluminum	3	0.4	0.2%	0.075	0.009	0.5%
Non Ferrous	0	0.0	0.0%	0	0.000	0.0%
Food Cans	51	6.4	2.7%	0.375	0.047	2.3%
Ferrous	15	1.9	0.8%	0.175	0.022	1.1%
Oil filters	0	0.0	0.0%	0	0.000	0.0%
METAL TOTALS	104	13.0	5.4%	1.15	0.144	6.9%
PET #1	58	7.3	3.0%	0.8	0.100	4.8%
HDPE #2	47	5.9	2.4%	0.825	0.103	5.0%
Plastic Film	112	14.0	5.8%	1.925	0.241	11.6%
Other Plastic	194	24.3	10.1%	2.45	0.306	14.7%
PLASTIC TOTALS	411	51.4	21.4%	6	0.750	36.1%
Food Waste	326	40.8	17.0%	1.275	0.159	7.7%
Wood Waste	25	3.1	1.3%	0.15	0.019	0.9%
Textiles	56	7.0	2.9%	0.3	0.038	1.8%
Diapers	133	16.6	6.9%	0.6	0.075	3.6%
Other Organics	35	4.4	1.8%	0.25	0.031	1.5%
ORGANIC TOTALS	575	71.9	29.9%	2.575	0.322	15.5%
Fines	16	2.0	0.8%	0.225	0.028	1.4%
Other Inorganics	10	1.3	0.5%	0.1	0.013	0.6%
INORGANIC TOTALS	26	3.3	1.4%	0.325	0.041	2.0%
HHW	10	1.3	0.5%	0.125	0.016	0.8%
Electronic Waste	4	0.5	0.2%	0.05	0.006	0.3%
SPECIAL WASTE TOTALS	14	1.8	0.7%	0.175	0.022	1.1%
TOTAL	1923	240.4	100%	16.625	2.078	100%

Chart 15.1 - West Plains Results Fall 2006 vs. Spring 2007
Percentage by Weight

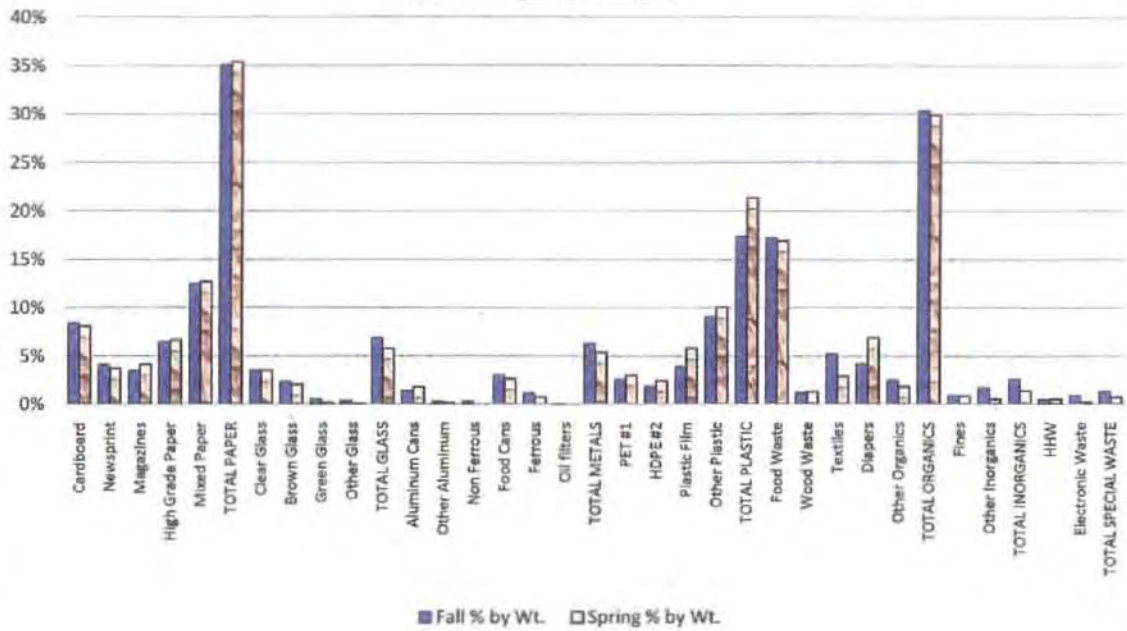
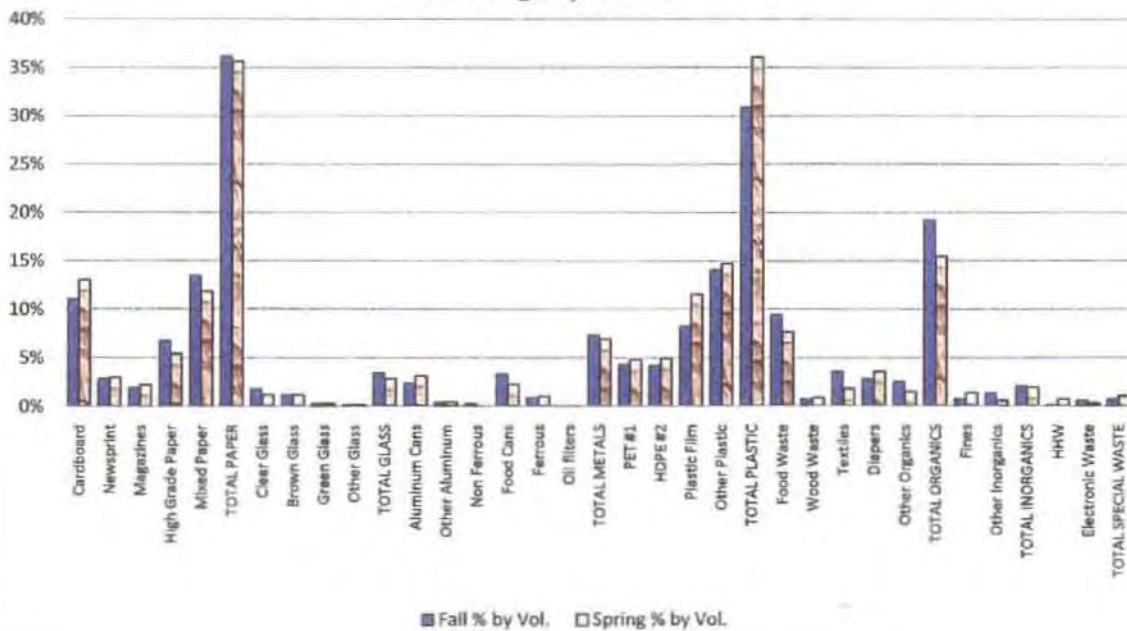


Chart 15.2 - West Plains Results Fall 2006 vs. Spring 2007
Percentage by Volume



**Table 15.4 - Waste Composition Summary and Comparison
City of West Plains Transfer Station 1996-1997 to 2006-2007**

	Fall Sort - 10/16-10/17/06				Spring Sort - 4/3-4/4/07				Total 2006-2007 Site Results				1996-1997	2006-2007	Difference
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	176	8.4%	1.850	11.1%	156	8.1%	2.18	13.1%	332	8.28%	4.03	12.10%	5.70%	8.28%	2.6%
Newsprint	86	4.1%	0.475	2.9%	72	3.7%	0.50	3.0%	158	3.94%	0.98	2.93%	4.20%	3.94%	-0.3%
Magazines	73	3.5%	0.325	2.0%	80	4.2%	0.38	2.3%	153	3.82%	0.70	2.10%	3.70%	3.82%	0.1%
High Grade Paper	136	6.5%	1.125	6.8%	128	6.7%	0.90	5.4%	264	6.58%	2.03	6.09%	8.40%	6.58%	-1.8%
Mixed Paper	261	12.5%	2.250	13.5%	245	12.7%	1.98	11.9%	506	12.62%	4.23	12.70%	18.20%	12.62%	-5.6%
TOTAL PAPER	732	35.1%	6.025	36.2%	681	35.4%	5.93	35.6%	1,413	35.24%	11.95	35.91%	40.20%	35.24%	-5.0%
Clear Glass	75	3.6%	0.300	1.8%	68	3.5%	0.20	1.2%	143	3.57%	0.50	1.50%	2.30%	3.57%	1.3%
Brown Glass	50	2.4%	0.200	1.2%	40	2.1%	0.20	1.2%	90	2.24%	0.40	1.20%	0.90%	2.24%	1.3%
Green Glass	12	0.6%	0.050	0.3%	3	0.2%	0.05	0.3%	15	0.37%	0.10	0.30%	0.50%	0.37%	-0.1%
Other Glass	8	0.4%	0.025	0.2%	1	0.1%	0.03	0.2%	9	0.22%	0.05	0.15%	0.50%	0.22%	-0.3%
TOTAL GLASS	145	6.9%	0.575	3.5%	112	5.8%	0.48	2.9%	257	6.41%	1.05	3.16%	4.20%	6.41%	2.2%
Aluminum Cans	30	1.4%	0.400	2.4%	35	1.8%	0.53	3.2%	65	1.62%	0.93	2.78%	1.50%	1.62%	0.1%
Other Aluminum	6	0.3%	0.075	0.5%	3	0.2%	0.08	0.5%	9	0.22%	0.15	0.45%	0.50%	0.22%	-0.3%
Non Ferrous	6	0.3%	0.050	0.3%	-	0.0%	-	0.0%	6	0.15%	0.05	0.15%	0.30%	0.15%	-0.2%
Food Cans	64	3.1%	0.550	3.3%	51	2.7%	0.38	2.3%	115	2.87%	0.93	2.78%	3.00%	2.87%	-0.1%
Ferrous	25	1.2%	0.150	0.9%	15	0.8%	0.18	1.1%	40	1.00%	0.33	0.98%	0.90%	1.00%	0.1%
Oil filters	1	0.0%	0.001	0.0%	-	0.0%	-	0.0%	1	0.02%	0.00	0.00%	0.40%	0.02%	-0.4%
TOTAL METALS	132	6.3%	1.226	7.4%	104	5.4%	1.15	6.9%	236	5.89%	2.38	7.14%	6.60%	5.89%	-0.7%
PET #1	53	2.5%	0.725	4.4%	58	3.0%	0.80	4.8%	111	2.77%	1.53	4.58%	1.70%	2.77%	1.1%
HDPE #2	39	1.9%	0.700	4.2%	47	2.4%	0.83	5.0%	86	2.14%	1.53	4.58%	2.00%	2.14%	0.1%
Plastic Film	81	3.9%	1.375	8.3%	112	5.8%	1.93	11.6%	193	4.81%	3.30	9.92%	4.80%	4.81%	0.0%
Other Plastic	190	9.1%	2.350	14.1%	194	10.1%	2.45	14.7%	384	9.58%	4.80	14.42%	8.30%	9.58%	1.3%
TOTAL PLASTIC	363	17.4%	5.150	30.9%	411	21.4%	6.00	36.1%	774	19.30%	11.15	33.51%	16.80%	19.30%	2.5%
Food Waste	360	17.2%	1.575	9.5%	326	17.0%	1.28	7.7%	686	17.11%	2.85	8.56%	18.50%	17.11%	-1.4%
Wood Waste	25	1.2%	0.125	0.8%	25	1.3%	0.15	0.9%	50	1.25%	0.28	0.83%	0.80%	1.25%	0.4%
Textiles	109	5.2%	0.600	3.6%	56	2.9%	0.30	1.8%	165	4.11%	0.90	2.70%	2.30%	4.11%	1.8%
Diapers	88	4.2%	0.475	2.9%	133	6.9%	0.60	3.6%	221	5.51%	1.08	3.23%	3.30%	5.51%	2.2%
Other Organics	51	2.4%	0.425	2.6%	35	1.8%	0.25	1.5%	86	2.14%	0.68	2.03%	3.00%	2.14%	-0.9%
TOTAL ORGANICS	633	30.3%	3.200	19.2%	575	29.9%	2.58	15.5%	1,208	30.12%	5.78	17.35%	27.90%	30.12%	2.2%
Fines	19	0.9%	0.125	0.8%	18	0.8%	0.23	1.4%	35	0.87%	0.35	1.05%	2.50%	0.87%	-1.6%
Other Inorganics	35	1.7%	0.225	1.4%	10	0.5%	0.10	0.6%	45	1.12%	0.33	0.98%	1.30%	1.12%	-0.2%
TOTAL INORGANICS	54	2.6%	0.350	2.1%	26	1.4%	0.33	2.0%	80	2.00%	0.68	2.03%	3.80%	2.00%	-1.8%
HHW	9	0.4%	0.025	0.2%	10	0.5%	0.13	0.8%	19	0.47%	0.15	0.45%	n/a	0.47%	0.5%
Electronic Waste	19	0.9%	0.100	0.6%	4	0.2%	0.05	0.3%	23	0.57%	0.15	0.45%	na	0.57%	0.6%
TOTAL SPECIAL WASTE	28	1.3%	0.125	0.8%	14	0.7%	0.18	1.1%	42	1.05%	0.30	0.90%		1.05%	1.0%
TOTAL COMPOSITION	2,087	100%	16.7	100%	1,923	100%	16.6	100%	4,010	100%	33.3	100%	100%	100%	0%

**Table 15.5 - Waste Composition Summary and Comparison West Plains Transfer Station
Site to 2006-2007 Overall Average**

	Fall Sort - 10/16-10/17/06				Spring Sort - 4/3-4/4/07				Total 2006-2007 Results for Site				Avg. All Sites West Plains Difference		
	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	Wt.(lbs.)	%by Wt.	Vol.(cy)	%by Vol.	% by Wt.	% by Wt.	% by Wt.
Cardboard	176	8.4%	1.850	11.1%	156	8.1%	2.18	13.1%	332	8.28%	4.03	12.10%	8.20%	8.28%	0.1%
Newsprint	86	4.1%	0.475	2.9%	72	3.7%	0.50	3.0%	158	3.94%	0.98	2.93%	5.17%	3.94%	-1.2%
Magazines	73	3.5%	0.325	2.0%	80	4.2%	0.38	2.3%	153	3.82%	0.70	2.10%	3.66%	3.82%	0.2%
High Grade Paper	136	6.5%	1.125	6.8%	128	6.7%	0.90	5.4%	264	6.58%	2.03	6.09%	6.40%	6.58%	0.2%
Mixed Paper	261	12.5%	2.250	13.5%	245	12.7%	1.98	11.9%	506	12.62%	4.23	12.70%	10.20%	12.62%	2.4%
TOTAL PAPER	732	35.1%	6.025	36.2%	681	35.4%	5.93	35.6%	1,413	35.24%	11.95	35.91%	33.63%	35.24%	1.6%
Clear Glass	75	3.6%	0.300	1.8%	68	3.5%	0.20	1.2%	143	3.57%	0.50	1.50%	2.71%	3.57%	0.9%
Brown Glass	50	2.4%	0.200	1.2%	40	2.1%	0.20	1.2%	90	2.24%	0.40	1.20%	1.77%	2.24%	0.5%
Green Glass	12	0.6%	0.050	0.3%	3	0.2%	0.05	0.3%	15	0.37%	0.10	0.30%	0.63%	0.37%	-0.3%
Other Glass	8	0.4%	0.025	0.2%	1	0.1%	0.03	0.2%	9	0.22%	0.05	0.15%	0.32%	0.22%	-0.1%
TOTAL GLASS	145	6.9%	0.575	3.5%	112	5.8%	0.48	2.9%	257	6.41%	1.05	3.16%	5.44%	6.41%	1.0%
Aluminum Cans	30	1.4%	0.400	2.4%	35	1.8%	0.53	3.2%	65	1.62%	0.93	2.78%	1.59%	1.62%	0.0%
Other Aluminum	6	0.3%	0.075	0.5%	3	0.2%	0.08	0.5%	9	0.22%	0.15	0.45%	0.34%	0.22%	-0.1%
Non Ferrous	6	0.3%	0.050	0.3%	-	0.0%	-	0.0%	6	0.15%	0.05	0.15%	0.23%	0.15%	-0.1%
Food Cans	64	3.1%	0.550	3.3%	51	2.7%	0.38	2.3%	115	2.87%	0.93	2.78%	2.93%	2.87%	-0.1%
Ferrous	25	1.2%	0.150	0.9%	15	0.8%	0.18	1.1%	40	1.00%	0.33	0.98%	0.87%	1.00%	0.1%
Oil filters	1	0.0%	0.001	0.0%	-	0.0%	-	0.0%	1	0.02%	0.00	0.00%	0.08%	0.02%	-0.1%
TOTAL METALS	132	6.3%	1.226	7.4%	104	5.4%	1.15	6.9%	236	5.89%	2.38	7.14%	6.04%	5.89%	-0.2%
PET #1	53	2.5%	0.725	4.4%	58	3.0%	0.80	4.8%	111	2.77%	1.53	4.58%	2.55%	2.77%	0.2%
HDPE #2	39	1.8%	0.700	4.2%	47	2.4%	0.83	5.0%	86	2.14%	1.53	4.58%	1.90%	2.14%	0.2%
Plastic Film	81	3.9%	1.375	8.3%	112	5.8%	1.93	11.6%	193	4.81%	3.30	9.92%	4.82%	4.81%	0.0%
Other Plastic	190	9.1%	2.350	14.1%	194	10.1%	2.45	14.7%	384	9.58%	4.80	14.42%	7.99%	9.58%	1.6%
TOTAL PLASTIC	363	17.4%	5.150	30.9%	411	21.4%	6.00	36.1%	774	19.30%	11.15	33.51%	17.25%	19.30%	2.1%
Food Waste	360	17.2%	1.575	9.5%	326	17.0%	1.28	7.7%	686	17.11%	2.85	8.56%	17.22%	17.11%	-0.1%
Wood Waste	25	1.2%	0.125	0.8%	25	1.3%	0.15	0.9%	50	1.25%	0.28	0.83%	1.19%	1.25%	0.1%
Textiles	109	5.2%	0.600	3.6%	56	2.9%	0.30	1.8%	165	4.11%	0.90	2.70%	4.73%	4.11%	-0.6%
Diapers	88	4.2%	0.475	2.9%	133	6.9%	0.60	3.6%	221	5.51%	1.08	3.23%	5.48%	5.51%	0.0%
Other Organics	51	2.4%	0.425	2.6%	35	1.8%	0.25	1.5%	86	2.14%	0.68	2.03%	2.97%	2.14%	-0.8%
TOTAL ORGANICS	633	30.3%	3.200	19.2%	575	29.9%	2.58	15.5%	1,208	30.12%	5.78	17.35%	31.59%	30.12%	-1.5%
Fines	19	0.9%	0.125	0.8%	16	0.8%	0.23	1.4%	35	0.87%	0.35	1.05%	0.93%	0.87%	-0.1%
Other Inorganics	35	1.7%	0.225	1.4%	10	0.5%	0.10	0.6%	45	1.12%	0.33	0.98%	3.21%	1.12%	-2.1%
TOTAL INORGANICS	54	2.6%	0.350	2.1%	26	1.4%	0.33	2.0%	80	2.00%	0.68	2.03%	4.14%	2.00%	-2.1%
HHW	9	0.4%	0.025	0.2%	10	0.5%	0.13	0.8%	19	0.47%	0.15	0.45%	0.92%	0.47%	0.5%
Electronic Waste	19	0.9%	0.100	0.6%	4	0.2%	0.05	0.3%	23	0.57%	0.15	0.45%	0.99%	0.57%	0.6%
TOTAL SPECIAL WASTE	28	1.3%	0.125	0.8%	14	0.7%	0.18	1.1%	42	1.05%	0.30	0.90%	1.91%	1.05%	-0.9%
TOTAL COMPOSITION	2,087	100%	16.7	100%	1,923	100%	16.6	100%	4,010	100%	33.3	100%	100%	100%	0%

Chart 15.3 - West Plains Results 2006-2007 vs. 1996-1997
(Special Waste Category new in 2006-2007)

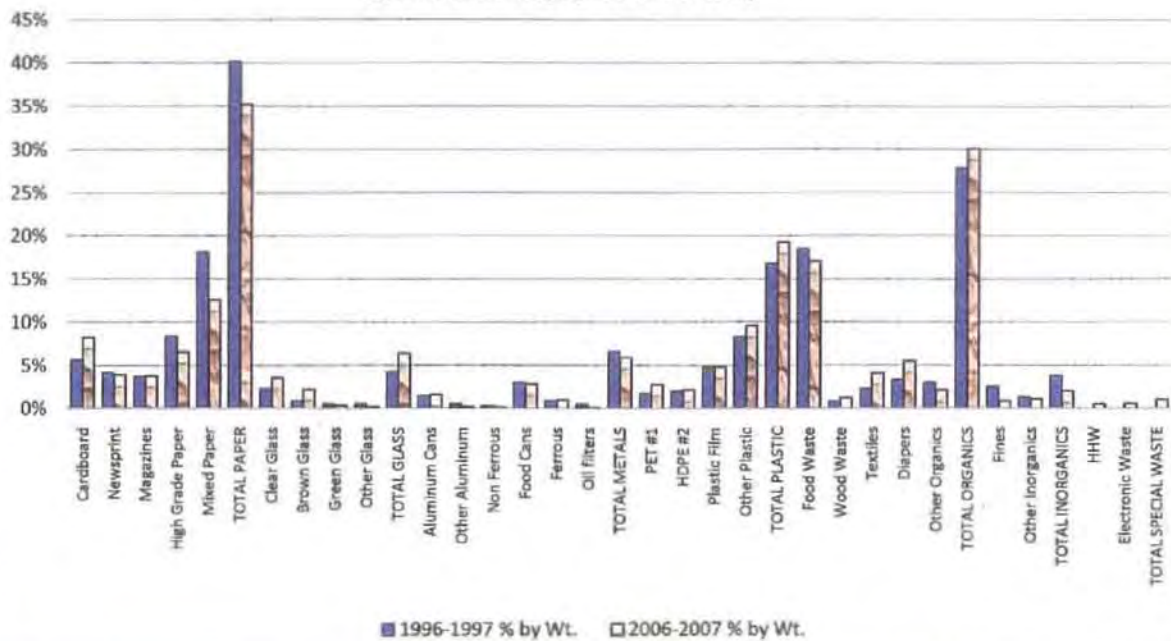


Chart 15.4 - West Plains Results 2006-2007 vs. 2006-2007 Sort Average

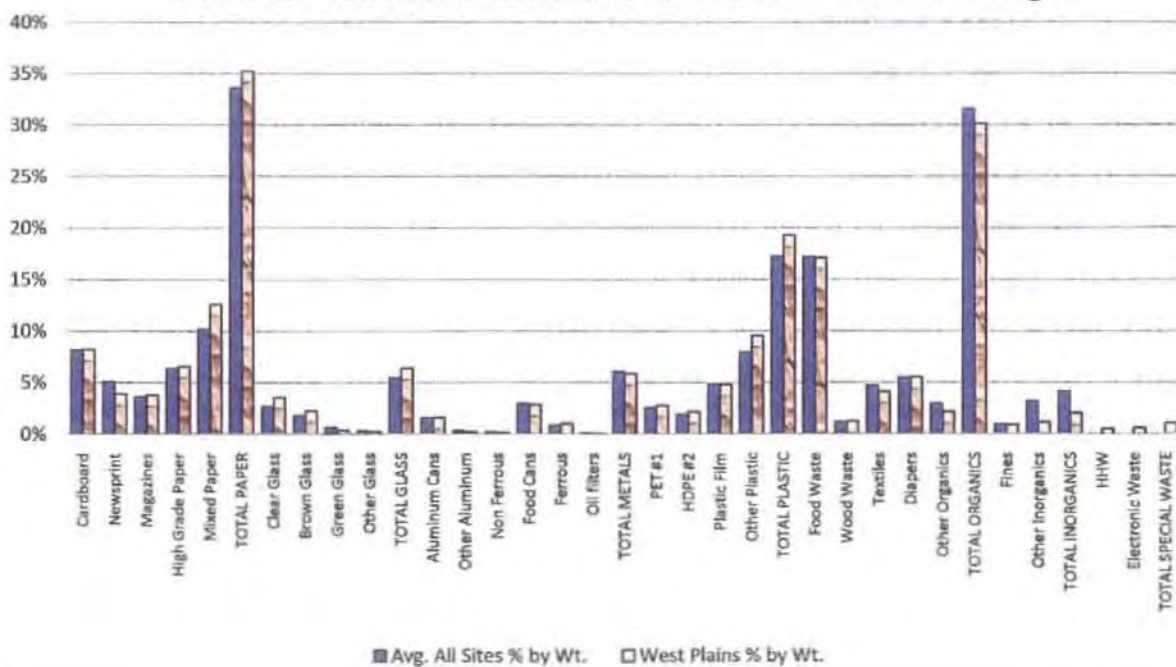


Table 15.6 - Special Waste Sorted at West Plains Transfer Station

	Fall 2006	Spring 2007
ELECTRONICS		1
Musical item (CD player, radio, boom box, etc.)	1	
Small Appliances (toaster, clock, coffee maker, calculator/adding machine, elec. tooth brush, etc.)	1	
TV, VCR, DVD player, Game Stations, etc.		
Remote Control or Game Controller		
Electronic Toy or Game	1	1
Computer Hard Drive		1
Computer Monitor		
Computer Keyboard		
Computer Mouse		
Computer Printer		1
Toner Cartridge		
Telephone/Answering Machine	1	2
Cell Phones, Chargers		
HOUSEHOLD HAZARDOUS WASTE (Containers with Contents)		
Needles/Syringes	some	some
Paint, Thinner, etc.		1
Automotive Fluids (oil, fuel, starting fluid, etc.)	1	
Oil Filters	1	
Household Cleaners		1
Yard & Garden Spray, Powder, etc.	2	1
Insect & Animal Repellant Spray, Powder, Poison, etc.	2	1
Over The Counter & Prescription Medicine	some	some
Beauty & Hygiene Products	some	1
Disposable Razors		
Alkaline Batteries	27	9
Lithium & Other Batteries	2	
Smoke Alarm		

Weight of Batteries Reported by RBRC

32.4 oz.

5.3 oz.

REFERENCES:

Abitibi Recycling, Kansas City Area Manager Donna Utter, donna_utter@abitibiconsolidated.com

Beverage Digest Fact Book 2006

Beverage Marketing Corporation, www.beveragemarketing.com/?section=inthenews#

Environmental Protection Agency, "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2005"

Missouri Department of Natural Resources Solid Waste Management Program

Missouri Department of Natural Resources Hazardous Waste Program

QSR (Quick Service Restaurant) Magazine:

<http://www.qsrmagazine.com/articles/news/print.phtml?id=5663>

Solid Waste Management District Planners